

Motu Public Policy Seminar: Auckland

Cities: the need to understand better before we mess about with them

Paul Cheshire: LSE & SERC

14th December 2012



Basic points...

1. Cities have fundamental advantages and contribute directly to human welfare: most important invention in history
2. They work because of specialisation and agglomeration benefits
3. But they change - grow and decline - as external factors conditioning development alter
4. Urban decline given way to resurgence as payoffs to skills increased ↔ agglomeration economies;
5. Costs as well as benefits of city size (congestion, crime, price of space);
6. Developed strong urban policy without evidence; or understanding what makes cities work well;
7. Danger of killing the geese that lay the golden eggs: imperative we understand better before acting.

Cities have a great future: but have to accept change

Cities are fundamental to civilisation

- Like the wheel – one of **the** fundamental inventions
- Intrinsic to economic & cultural development
- Basis of division of labour **and** contribute to welfare directly
- ‘Invention’ as fundamental as - and complementary to - invention of agriculture:
 - could say cities led to invention of wheel....
- Origins go back 10 000 years at least: to Middle East
- A Darwinian process: experimentation –
- Adopt what works - market places; public open spaces...
- Drop what does not work - city walls

Above all cities are about specialisation

Why do cities work?

- Cities founded on *specialisation* –
- peasants/farmers ↔ urban occupations
 - Commerce, artisans, administration, cultural/religion, defence/military
- These are really still the fundamental urban occupations
- Cities ‘discovered’ not only in Middle East but independently in other cultures at various times
- In northern China alone more than 20 50,000+ cities in 221 BC
 - Arrived in Europe – especially north Europe – quite late:
 - And in new Zealand later still

The Basis of Cities - Agglomeration economies

- Important for production
- Firms use each other & learn from each other: proximity improves contacts

Conventional story told by Alfred Marshall in 19th Century: textile firms used common knowledge of technology & markets: specialised finance, labour pooling; supply of skills
And - 'knowledge in the air'

Agglomeration economies mean producers benefit from being 'close' to other complementary firms: labour pools; subcontractors; specialised inputs e.g. finance; networks; infrastructure; knowledge sharing....

Agglomeration economies for services...

- Traditionally thought of for manufacturing: but
- **More important for intellectual activities** – e.g. Cultural industries - renaissance painting – sculpture – architecture;
- The ‘Lunar Society’ in 18th C Birmingham – early industrialists and scientists learning from each other;
- London’s media industry: theatre – actors’ agencies – film – TV – graphics and music - digital effects – intellectual property law etc;
- Cheap memory devices to £100 000 rough ‘film’ in 2 hours – minimise time to revenue generation; => inputs to hand
- Financial services – instantly act on information; research etc
- In cities not just more face-to-face communication: more intense communication of ALL types – learning from, using each other
- Double size of city and productivity increases 3 to 6%:
- Latest research suggests agglomeration economies ‘portable’

Not just agglomeration economies in production

- “...great achievements of the bourgeoisie ... rescued the mass of the people from the idiocy of rural life” (Marx & Engels, 1848)

Cities as generators of welfare: variety, choice, competition, interactions, FUN...

- But - all economic choices constrained by income
- Many important ‘goods’ accessed via location;
- And the same is true of them:

e.g. School quality, clean air, low crime, nice views, nice parks, friendly neighbourhoods...

So free goods in cities are not free

- ‘Free goods’ **provided** by taxes or nature but **allocated** via housing markets: because values are capitalised
- Also neighbourhoods: as welfare generators/consumption goods
 - Sympathetic neighbours, living with similar & compatible people – important source of welfare: ethnic; demographic; tastes; incomes...
- Hubris of social engineering attempts to force ‘mixed’ communities
 - People when left to choose, choose to live with their peers;
- But choices constrained by incomes: poor people can’t afford affluent neighbourhoods – but their problem is poverty – not where they live...
- We should worry about poor people not poor neighbourhoods

Death of Cities to

- 1974 – ‘*Death of Cities*’; 1975 - New York on brink of bankruptcy; 1982 - European Commission & ‘urban decline’
- But cities sprang back: London; Amsterdam; Madrid;
- Reason? Same as increase in inequality
- Growth sectors show increasing payoff to highly skilled
- In Britain university graduates increase 4-fold: proportion of cohort from less than 10% to over 40% in 40 years
- But payoff to a university degree has **increased**
- More skilled implies more urban; additional payoff to ‘power couples’: live in large city

Death of Cities to... Resurgence

- Demographics favoured urban living: smaller families – more workers per dependent
- This increased demand for urban culture and services:
 - the things that make cities fun – restaurants, nightlife, music venues, galleries...
- And international migration increased
- **Plus** negatives of city living – crime, pollution – fallen
 - Crime rate down 26% in Auckland 15 years 1996/8 to 2009/11
- And growing activities are less land intensive/congestion sensitive compared to declining manufacturing etc; so cost of urban location less

And — contrary to popular perception — Cities are Green

- In US - average car trip emits X 10 carbon compared to average mass transit trip
- People living at ‘normal’ urban densities emit 1/3 carbon from car use compared to rural dwellers
- In US suburbs average family consumes 27% more electricity than similar urban household
- In US at urban densities more trips by foot and less energy use for home heating
- Hong Kong – archetypal city state - has the lowest greenhouse gas emissions per unit of GDP of any World Bank recognised entity; and next lowest is Singapore;
- NZ emits more than twice as much GHG per unit of GDP *cf* Singapore;

Inertia is strong but cities & urban system change

- There is great inertia in the internal structure of cities:
 - Natural amenities
 - wind direction; higher ground; sandy soil; sea view; rivers...
 - Human made amenities (royal residencies; local services...)
- Once patterns established - very hard to break: continuity of rich and poor areas; transport infrastructure, local services, shops etc:
- local e.g. London's Caledonian Road;
 - city-wide – London's East End/West End;
- strong patterns in all large cities
- **And why try to break them? What benefits would flow?**
 - E.g. London – East Thames Gateway; Stratford International and diversion of High Speed Channel Tunnel link; Olympics....
 - Costs huge: regeneration success? payoff to success?????

Inertia is great but cities & urban system change

- Inertia: but cities thrive and decline e.g. 1750 to 1850
 - Glasgow grew x 16 & from 8 to 6
 - Inverness grew x 1.4 & from 20 to 68
 - Liverpool grew x 17 & from 8 to 3
 - Bristol grew x 2.7 & from 3 to 8
 - Norwich grew x 1.8 & from 4 to 19
- And 1951 to 2001
 - Glasgow x 0.75; Liverpool, Sunderland x 0.8; Bristol x 1.3; Norwich x 1.4

Nothing compared to Asia:

- In 30 years from 1960 Seoul grew x 4.4
- In 27 years from 1983 Shenzhen grew x 29.5

Inertia is great but cities & urban system change

- Rise of urban Asia associated with industrialisation (and loss of comparative advantage in most older industrial products in mature industrial economies);
- Industrialisation in China and rural-urban migration rescued more people from poverty than anything seen before in history; but industrial growth in Asia means...
- Urban system in OECD countries now adapting to a post-industrial age
- Industrial cities, port cities will continue relatively to decline
- Not the end of the world: one skill urban policy needs to develop is managing (relative) decline - positively
- Larger cities, cities with strong advanced services and human capital will do relatively the best;
- Good luck for London, Sydney...Auckland:
- **But only if policy lets them!**
 - Increasing role of agglomeration economies

But there are also costs of city size

- If you are close enough to learn from someone
 - Then can give them a contagious disease; pick their pocket
 - crime benefits from agglomeration economies too
- Congestion increases with city size: congestion costs are a problem of failed incentives: in making choices we react only to own costs: do not consider costs our journey imposes on others
 - Pollution increases with city size
 - Crime increases with city size
 - Costs of space increase with city size – the price we pay for accessibility
- But there are technical solutions to many problems e.g.
- For example - public health revolution of late 19th C.
 - Clean air - smokeless zones, low emission cars;
 - Congestion - mass transit, congestion charging
 - Even supply of urban space....

So cities are critically important to wellbeing...

- But we do not really understand them...
 - In most countries – Europe, Australasia - do not even have systematic data!
1. Sources and magnitude of agglomeration economies?
 2. Role of agglomeration economies for consumption and welfare?
 3. Residential segregation and inequality? Why ‘mixed communities’?
 4. Sources and implications of differences in prosperity across regions, cities? Evidence on sorting – people versus places;

...So important to wellbeing...

but we intervene without understanding...

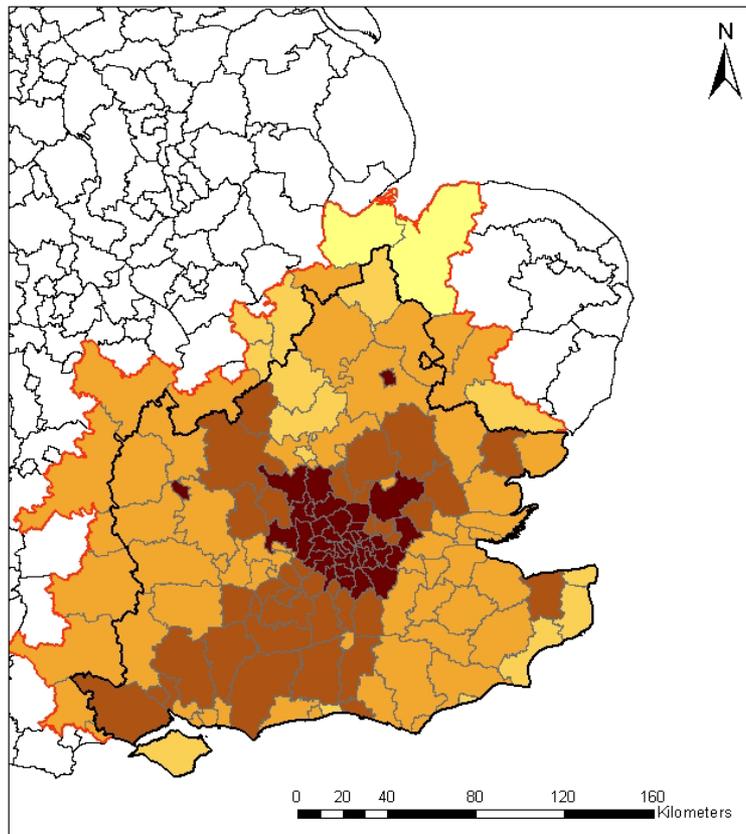
5. Cities and sustainability? What green payoff from growth constraints? 'Town centre first' policies?
 6. Structure of city sizes? Do we want 'polycentricity'? What/why a "balanced urban system"??
- We have imposed powerful – dirigiste – policies on all these;
 - But we know little about them:
 - indeed as we have been learning more over past 10 years, so increasingly evidence calls 'conventional wisdom policies' into question

Agglomeration vital and increasingly important

- Not only understand little about sources
 - We have policy actively opposing agglomeration
 - => In Britain (but elsewhere) forced decentralisation of public agencies to 'poorer' regions:
 - e.g. Chunks of BBC to Greater Manchester & Glasgow
 - Office for National Statistics to 3 places: S. Wales, Southampton & Merseyside
 - Ordnance Survey to Southampton
 - All assume no agglomeration economies: as BBC are already finding – very significant and having to pay huge costs for senior people to commute London/Manchester/Glasgow
- Media industries one of London's successes of past 30 years

Sustainability and Urban containment – “densification”

- Impedes city growth - so loses agglomeration economies: and increases price of housing; and makes housing market more volatile (see OECD Report on UK, March 2011)



Source: Property Market Report (July 2007)

UK been densifying since 1947
Result?
Price of land represents foregone agglomeration economies!

International policy difference and patterns of settlement

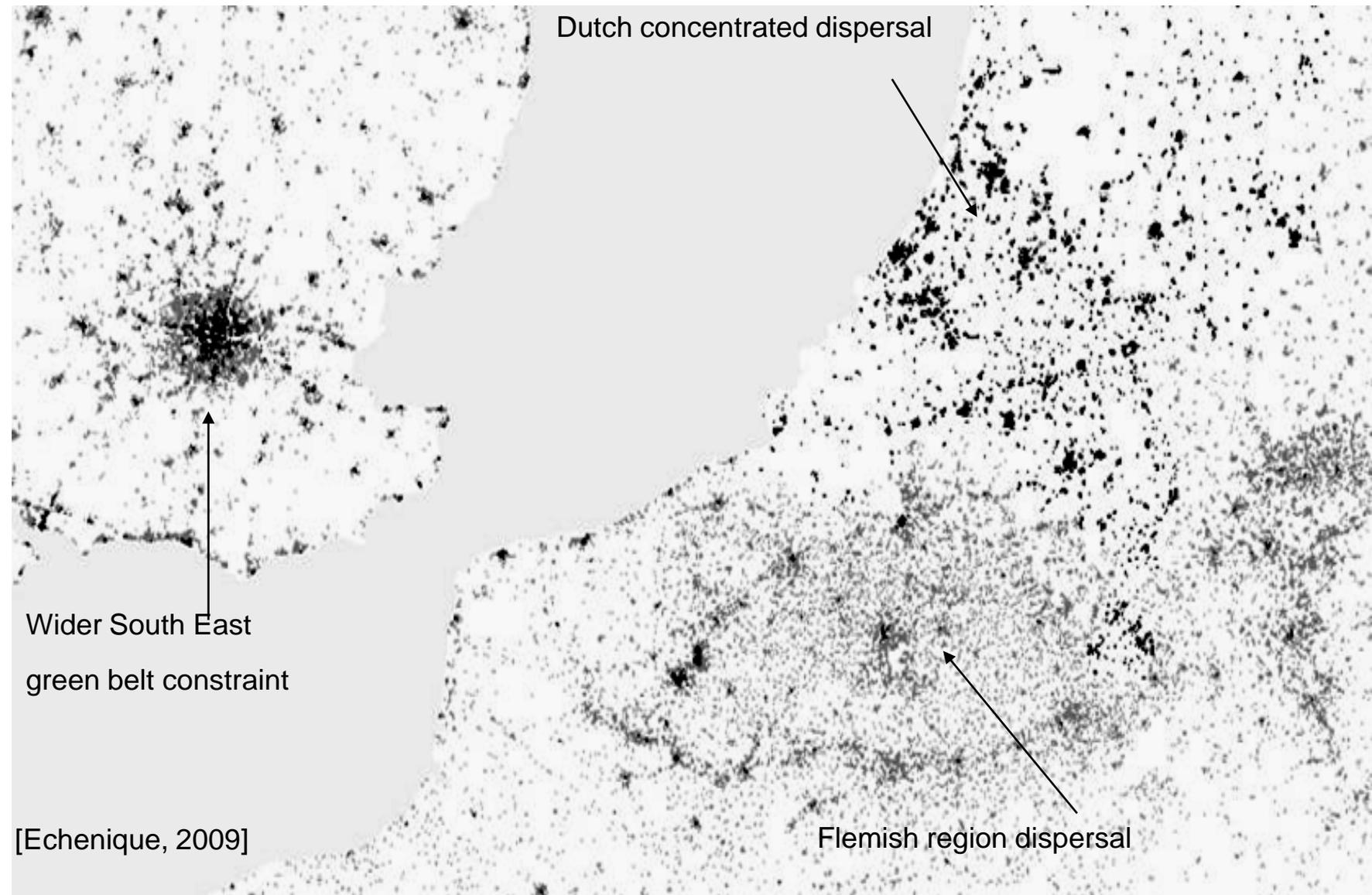
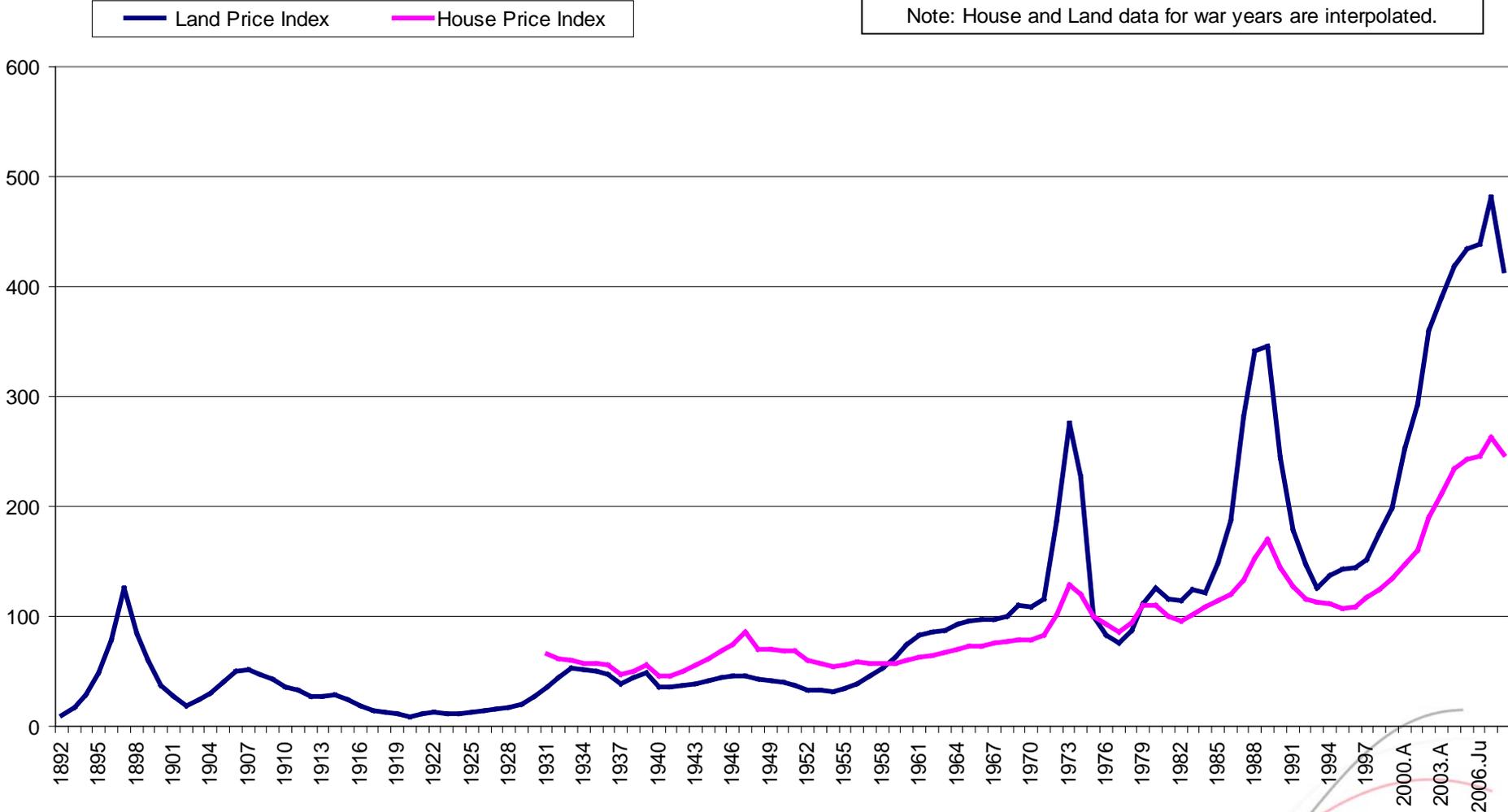
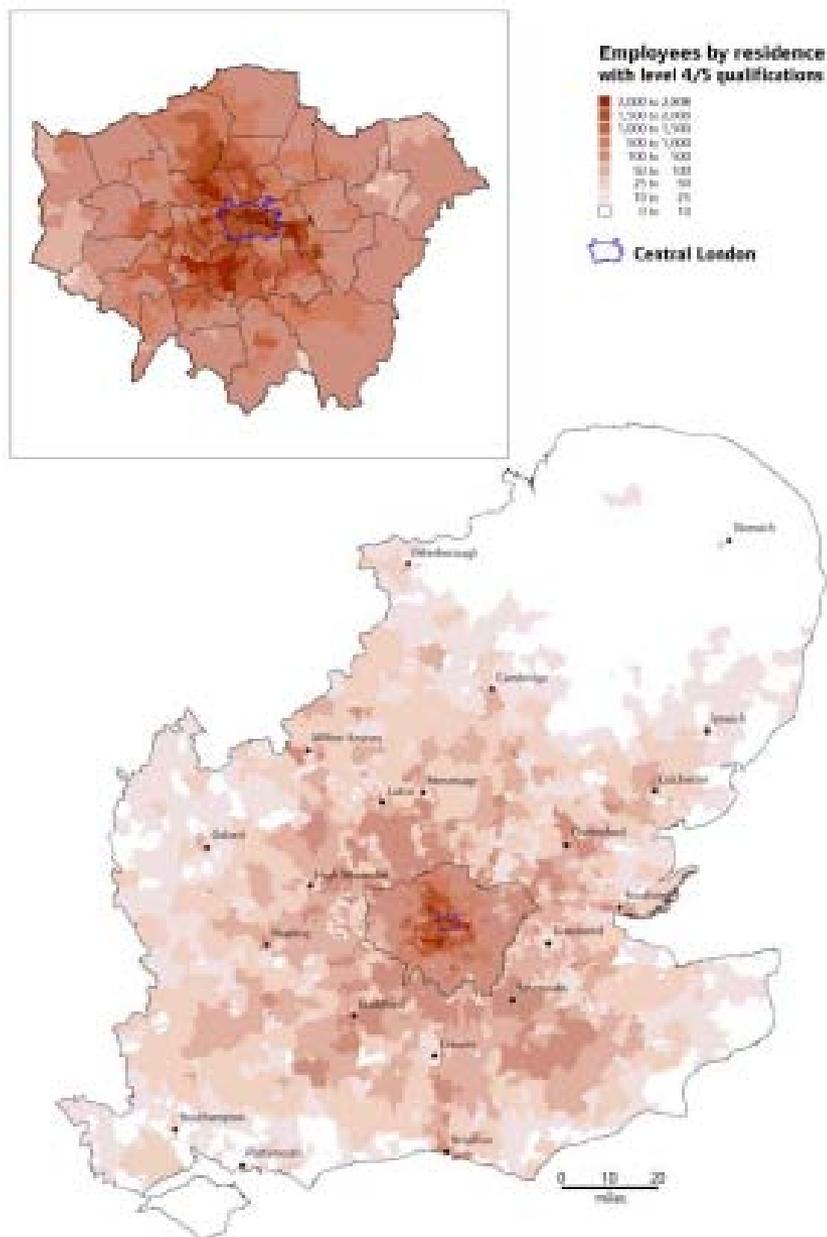


Figure 1: Real Land & House Price Indices (1975 = 100)



Paul Cheshire, LSE August 2009

Figure 41: Number of ward residents with Level 4/5 qualifications working in Central London



In Britain policy plans to 'contain' but people choose to behave in unintended ways

Highly skilled re-locate beyond the Greenbelt and commute from all over Southern England: Oxford, Cambridge act as high income 'dormitories'. London's carbon footprint likely increased compared to Paris. ⇒research!!! Similar issue likely with planned creation of jobs+residential new settlements

Improve performance of poorer regions, cities but...

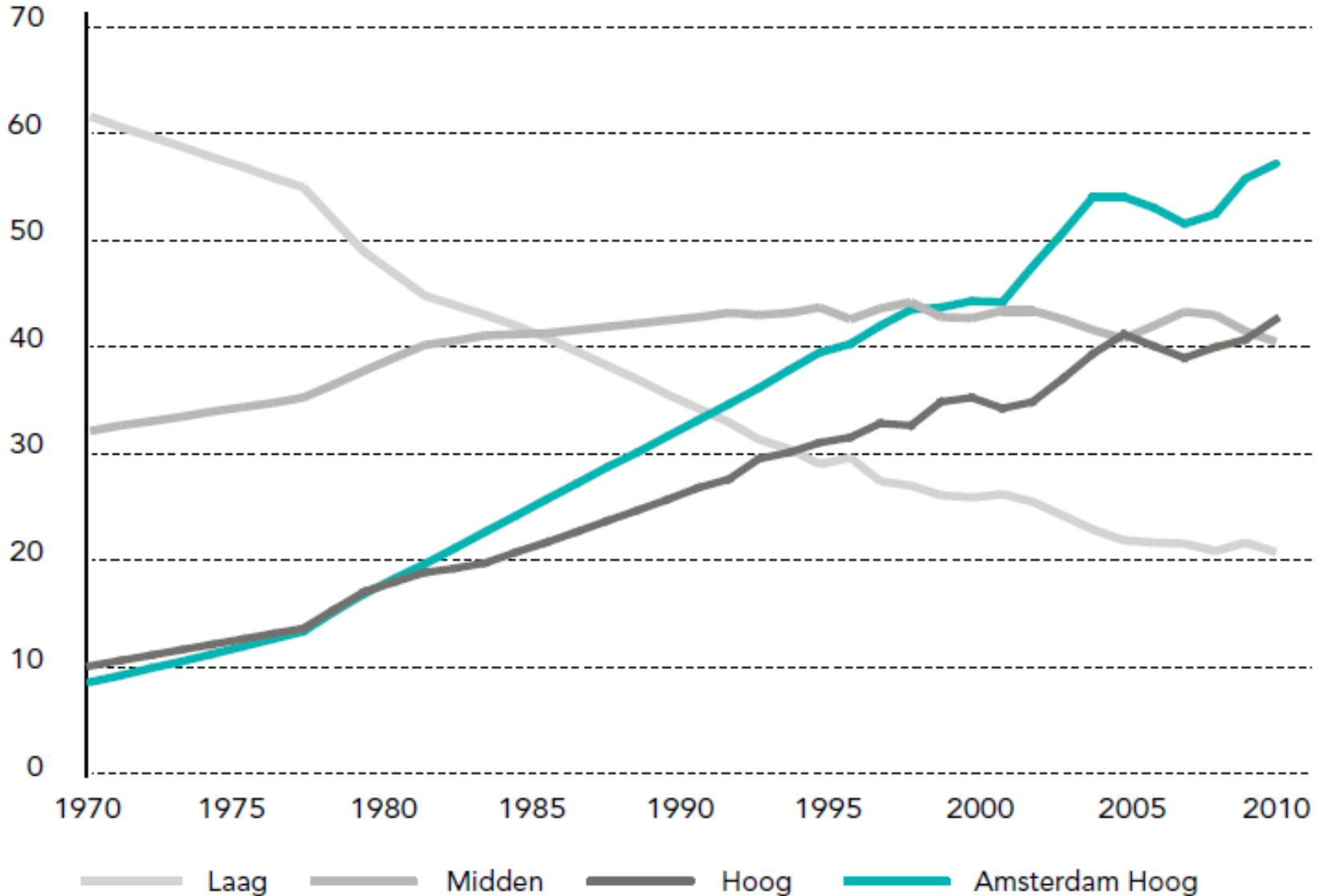
- Recent research (France, Netherlands & UK) finds evidence of real differences in welfare across regions/cities quite weak – if we allow for:
 - Human capital/skill differences – graduates heavily concentrated in big cities, richer regions
 - Prices – especially house prices – cancel out a lot of money wage advantages
 - Job differences

➤ And regional disparities seem almost to evaporate!

And filling poor regions with skilled, white collar jobs, paid national wage scales – displaces private sector employment.

Democratic systems over-concerned with spatial inequality compared to interpersonal inequality?

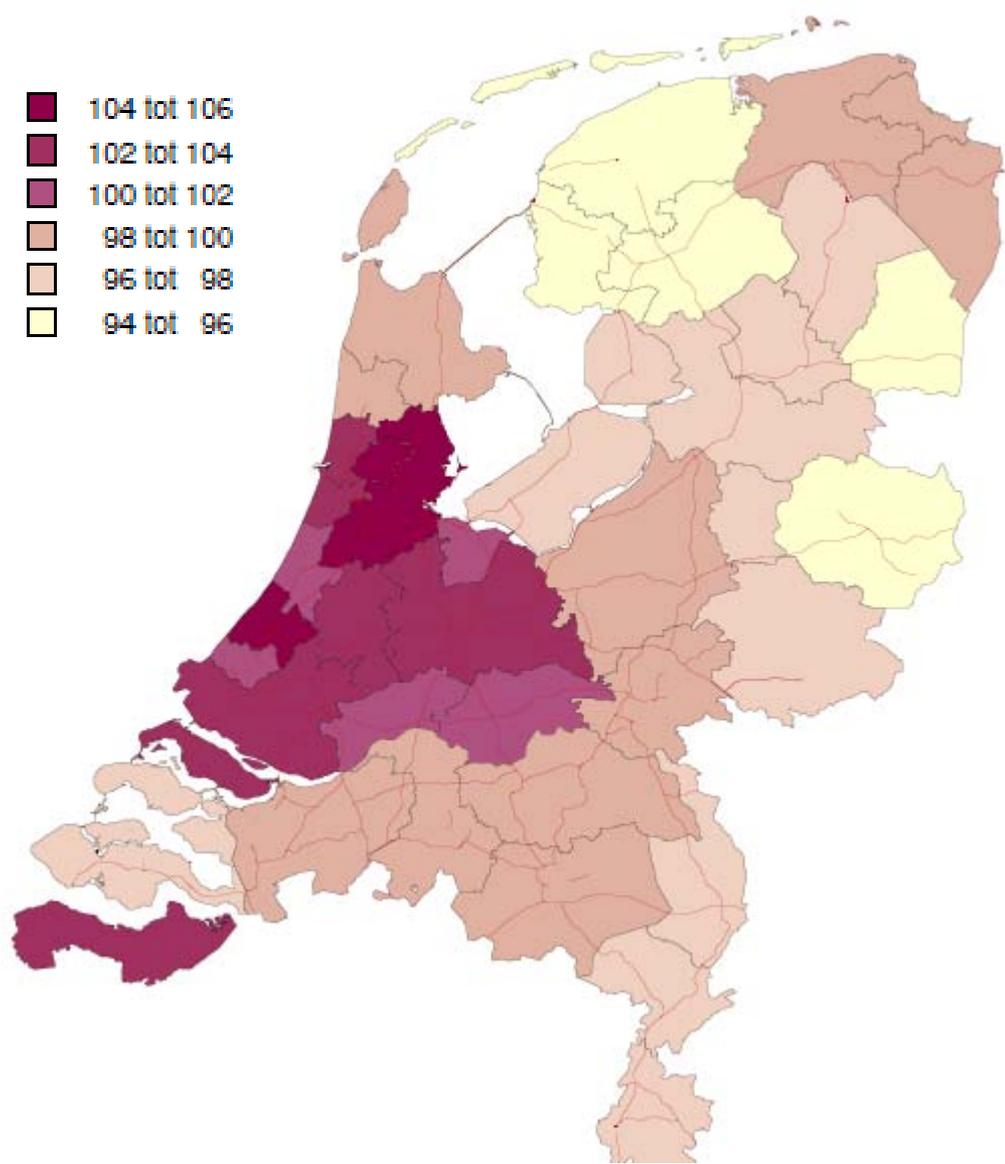
Figuur 1.7 Opleidingsniveau beroepsbevolking Metropoolregio Amsterdam ¹
 Aandeel hoog, midden en laag opgeleiden als percentage van de beroepsbevolking; 1970-2009



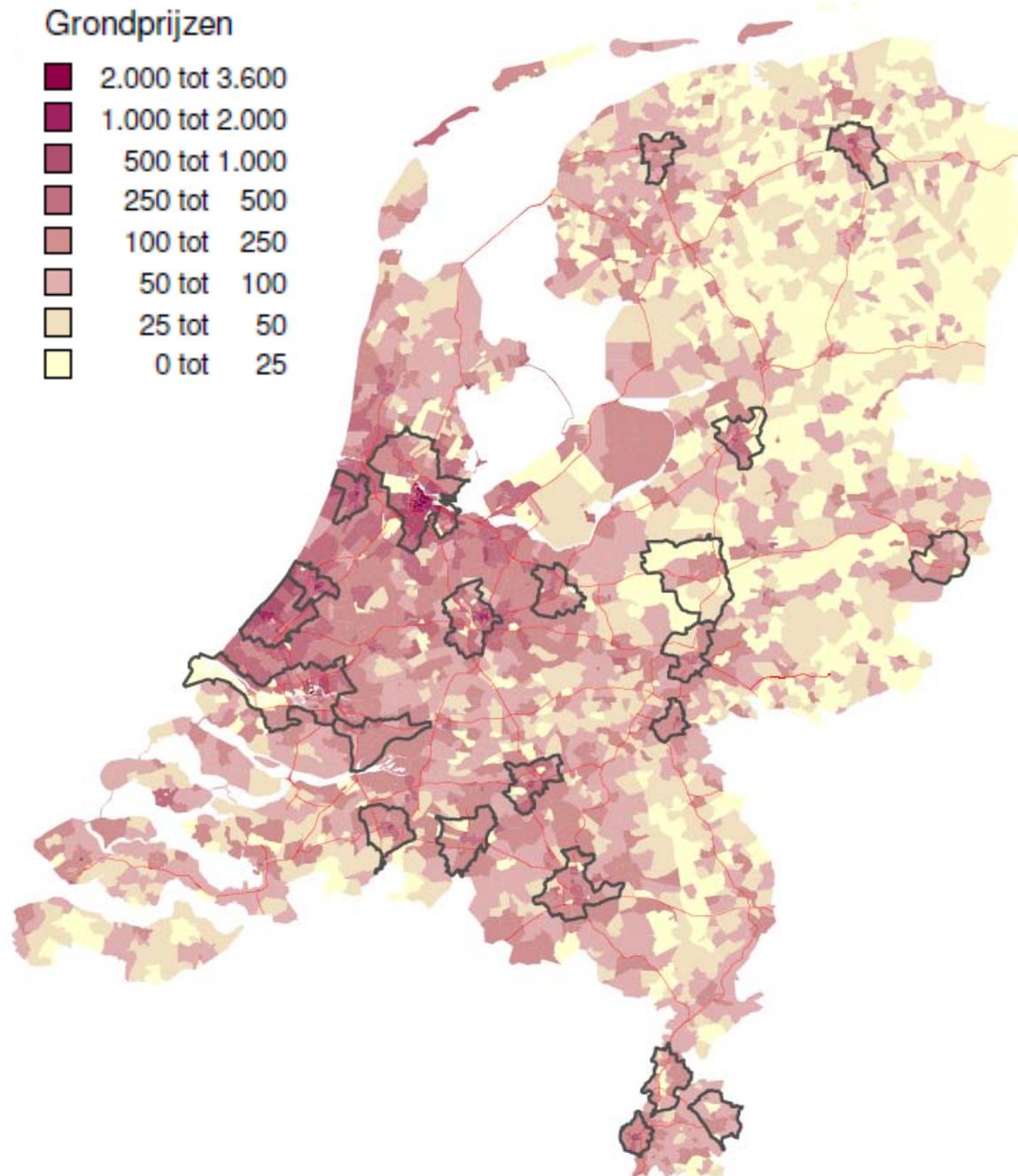
Source: Henri de Groot, Free University



Wage residuals after discounting for skill differences



Land rents - for 'pure' housing land



And within city inequality — residential segregation & mixed communities...

- A conventional wisdom for ‘mixed communities’; ‘disadvantaged areas’....
- But rigorous evidence that nicer neighbourhoods cost more
- Poor people concentrated in poor neighbourhoods because they can’t afford ‘nice’ neighbourhoods (or restaurant meals, opera or private health care....)
- Problem is what makes people poor: not where within city they live; cities and neighbourhoods a seamless whole.
- One advantage of cities - specialised neighbourhoods: evidence welfare benefits from living close to similar people: for poor as well as rich: and welfare losses from having neighbours richer than yourself

➤ Treating symptoms not causes?

Europe wants a 'balanced' urban system, Polycentricity... Why?

- An amazing constant in social sciences (known since 1913) is size structure of city system: Zipf's law
- 'Law' may overstate it: yet one thing for sure is we do not understand why this is observed:
 - Tinbergen: "one of the most well defined of socio-economic regularities" for which we have no explanation;
 - Krugman – "one area where economists have complex, messy models, yet reality is startlingly neat and simple"
- And increasing importance of agglomeration economies:
 - So why handicap your country or continent by forcing its cities to be medium sized?

Policies for 'balanced' urban systems 'densification' and 'urban containment' have substantial costs – both economic and environmental;

➤ But we do not know!

We need to understand better before we impose policy

Not saying we KNOW enough to conclude all these existing urban policies are wrong

But **we do need to know more** before we impose them

- We know enough to know we really must understand the sources of agglomeration economies better
- We know enough to know - should focus on developing/ applying urban policies that reduce the costs of urban size
 - Congestion – congestion pricing
 - Space costs – containment and high building controls?
 - Pollution – alternative technologies
 - Crime????
- We also know that cities are vital and becoming more important: yet we understand so little about how they function....

Conclusions |

- Future for cities bright – especially for larger cities specialising in advanced services:
 - if we do not let policy get in the way....
- Policy-makers need to view changes as opportunities not just threats; learn to ‘ride the wave’
- And learn to manage change – especially decline:
 - Cannot stand still: policy must be flexible – allow adaptation
- Skills at bidding for public funds a fading advantage
- Need to focus on policy within capacity of local policy makers to make cities more attractive;

Conclusions 2

- Can work on prices and quality;
- Can reduce costs of size rather than try to keep small;
- Efficiency of public administration & decision-making;
- Tier of government at metro region level for particular functions (transport, economic development, strategic planning);
- Maybe more local fiscal resources from property taxes: but not for redistribution.
- Do not try to ‘pick winners’: learn to nourish success
=> flexibility
- More concern for people & skills: less for where they live
- But do need urban policies; even more need research evidence to underpin and test them
- Cities are important.