

# **The green noose**

An analysis of Green Belts and proposals  
for reform

Tom Papworth

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# Contents

Executive summary	5
Acknowledgements	7
Introduction	9
1. A green and pleasant land	13
2. Green Belt policy in England	17
3. Supposed benefits of Green Belts: access to green space and environmental goods	29
4. The welfare costs of the Green Belt policy	37
5. Abolition or reform – the future of the Green Belt	45
Conclusion	51
Bibliography	53



# Executive Summary

- Despite academics, politicians, and international organisations recognising that the UK is facing a housing crisis, it is currently far less developed than many imagine, especially when compared to similar countries. Indeed, only two members of the EU 27 have less built environment per capita than the UK: the Netherlands and Cyprus. 90% of land in England remains undeveloped, and just 0.5% would be required to fulfil this decade's housing needs.

- Green Belts are not the bucolic idylls some imagine them to be; indeed, more than a third of protected Green Belt land is devoted to intensive farming, which generates net environmental costs.

- The concept of ever-expanding urban sprawl is mistaken and pernicious. In addition, Green Belts can give rise to “leap-frog development”, where intermediate patches of land are left undeveloped due to restrictions, a phenomenon indistinguishable from what many understand urban sprawl to be.

- By encouraging urban densification, Green Belts take green space away from those places where it is most valued. Each hectare of city park is estimated to be of £54,000 benefit per year, compared to a mere £889 per hectare for Green Belt land on the fringe of an urban area.

- There are substantial welfare costs of Green Belts. They have made accomodation more expensive and smaller, increased costs for businesses

(especially relative to other European cities), and have contributed to the volatility of house prices.

- The avenue of reform we favour is the complete abolition of the Green Belt, a step which could solve the housing crisis without the loss of any amenity or historical value – if only politicians and planners had the courage to take it.

- Failing this, we conclude that removing Green Belt designation from intensive agricultural land would also enable the building of all the housing required for the foreseeable future, and could help ameliorate the catastrophic undersupply of recent decades.

- In the short term, simply removing restrictions on land 10 minutes' walk of a railway station would allow the development of 1 million more homes within the Green Belt surrounding London alone.

# Acknowledgements

I would like to thank Professor Paul Cheshire and Joseph Kilroy at the Royal Town Planning Institute for their guidance and insight. I am most grateful for the contribution they made to improving this paper, though any flaws remain entirely my own. I would also like to thank Sam Bowman, Ben Southwood and all the team at the Adam Smith Institute for their continuing support and friendship.



# Introduction

“[P]oliticians of all political persuasions are still apt to argue that green belts represent one of the outstanding successes of post-war planning, and this widely-held impression creates a resilience against all attempts to change green belt restraint, both at the level of principle and locally through adjustments to particular green belt boundaries. Even so, it can be argued that green belts are more threatened by development pressures today than at any time since their piecemeal introduction ... in the 1950s” – Richard Munton, 1986.<sup>1</sup>

“Economists have sought for the past 30 or 40 years to make a contribution to land use planning. Their efforts have generally been ignored...” – Alan W Evans, 2003.<sup>2</sup>

If conventional wisdom is to be believed, Green Belts are perpetually under threat. According to the Campaign for the Protection of Rural England (CPRE)<sup>3</sup> and the

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1 Richard Munton, “Green Belts: the End of an Era?”, *Geography*, Vol. 71, No. 3 (June 1986), pp. 206-214.

2 Alan W. Evans, “Shouting Very Loudly: Economics, Planning and Politics”, *The Town Planning Review*, Vol. 74, No. 2, pp. 195-212, 2003.

3 “Green Belts Under Threat”, CPRE website, 25 August 2014, <http://www.cpre.org.uk/what-we-do/housing-and-planning/green-belts/update/item/1679-green-belts-under-threat>.

Daily Telegraph<sup>4</sup>, fleets of bulldozers are poised on the edge of these tiny, embattled strips of rural paradise. Without the existence of Green Belts, ugly urban landscapes would expand in unending concrete horror across the countryside. Omniscient and impartial politicians and town planners, who know better than we do where and how we should live, are the only bulwark against market forces that would concrete over our small and densely-packed country. Rather than sacrifice farmland to build detached houses with gardens, we must be crowded into ever denser cities, incentivised through rising house prices and rents to accept medium- and high-density living. Only by doing so can our leaders save our countryside and renew our urban centres.

This paper takes a critical look at Green Belt policy in England. We begin in section 1 by looking at the level of population density and urban development in the UK. We find that, though fairly densely populated, the UK is not especially overcrowded and is far from overdeveloped. Over 90% of England remains undeveloped and our entire housing need for the next decade could be fitted into just 0.5% of available land.

In section 2 we look at Green Belts on their own terms by examining the five stated aims of Green Belt policy. We find that policy is based upon two poorly defined concepts: the distinction between “rural” and “urban” and the notion of “urban sprawl”. The former is artificial and the latter loaded and prejudiced; references to “sprawl” assume (without proof) that housing and commercial space is a bad that needs to be curtailed. We find that there is an argument in very limited cases for preserving the setting and special character or historic towns, but argue that the broader opposition to the merger of all adjacent towns is misguided, ignores historical precedent and seeks to prevent natural and spontaneous growth. Finally, the suggestion that urban containment leads to urban regeneration is wrong and the policy potentially counter-productive.

We turn in section 3 to the common beliefs that Green Belts provide access to green space for urban populations and are environmentally beneficial. We show that the opposite is the case: urban populations value urban green space far more than Green Belts but these local parks are coming under increasing pressure as a result of urban containment policies and increased densification. The environmental benefits of Green Belts are overstated: they result in more land being

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4 “Swathes of green belt land sacrificed”, *Daily Telegraph*, 24 November 2014, <http://www.telegraph.co.uk/earth/greenpolitics/planning/9700722/Swathes-of-green-belt-land-sacrificed.html>.

devoted to transport infrastructure and to more pollution and greenhouse gas emissions. At best, the land that Green Belts “preserve” is protected only at the expense of other, potentially more environmentally valuable, land that is further removed from cities.

Green Belts are very costly, however. We consider the effect of urban containment policies on house prices, house sizes, house price volatility, costs to business and the environment. We find that Green Belts in fact have negative environmental effects and are harmful to individual welfare.

We therefore propose three different avenues for reform:

- 1. Abolition of the Green Belt combined with adequate protection for areas of real environmental, heritage or amenity value;**
- 2. Removal of Green Belt designations from all intensive agricultural land; or**
- 3. Removal of Green Belt designations from all intensive agricultural land within half a mile of a railway station.**

We conclude that either of the first two would solve the UK’s housing shortage and stimulate economic growth without the loss of any land of environmental, heritage or amenity value. The third, though limited and dependent upon assumptions about where people wish to live, would go a long way to solving the housing crisis in the medium term and would be far easier to achieve politically.

Britain has a housing crisis: it is widely recognised (by politicians, academics and international organisations) that the UK has some of the least affordable housing in the world. Our housing (unlike our country as a whole) is also cramped and of poor quality relative to our nearest comparators. All politicians agree that something needs to be done but few know what to do and fewer have the courage to do what is necessary. This paper seeks to contribute to the debate and offer practical solutions. It is our hope that decision-makers have the wisdom and courage to solve this problem.



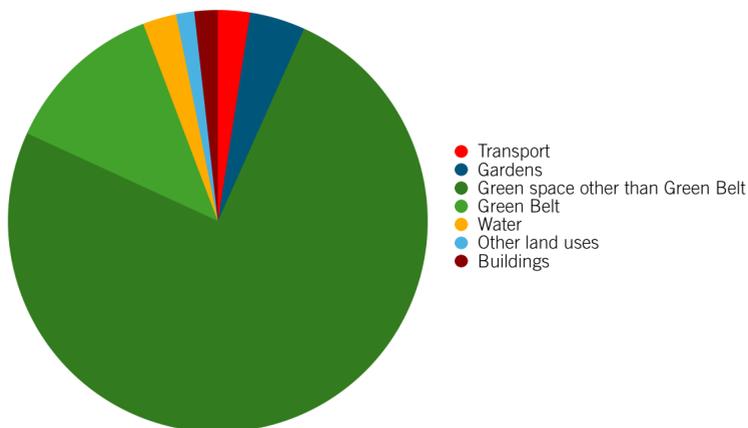
# 1. A green and pleasant land

England has a land area of approximately 13 million hectares. According to the Department of Communities and Local Government, just 9% is developed, whereas more than a third is protected from development through its designation as an Area of Outstanding Natural Beauty (AONB), a National Park or as Green Belt.<sup>5</sup>

This figure overstates the extent to which the UK's land is built upon, however. Using the Generalised Land Use Database for 2005 (the most recent year available) we can produce a more detailed breakdown of land use in England (other parts of the UK are even less developed).

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<sup>5</sup> Department of Communities and Local Government, *Local Planning Authority Green Belt: England 2012/2013*, Crown Copyright 2014.



**Figure 1: Land use in England**

International comparisons are only available between nation states. It is therefore necessary to consider the UK as a whole when making international comparisons. Table 1 compares the proportion of land in the UK that has been built upon with the EU average and with six comparator countries from the industrialised world. The level of development in the UK is similar to levels in Italy and Japan and not far off the EU 27 average. The amount of built environment per person is substantially lower than the EU average; in fact, only two countries in the EU 27 have less built environment per capita than the UK: the Netherlands and Cyprus.

	Population density (p/sq km)	Percentage of land mass developed	Amount of built environment (sq m/p)
<b>Belgium</b>	370	18.6	551
<b>Germany</b>	231	13.2	557
<b>Italy</b>	203	9.7	500
<b>Japan</b>	349	9.0	n/a
<b>Korea, Republic of</b>	517	n/a	n/a
<b>Netherlands</b>	498	17.0	363
<b>United Kingdom</b>	265	9.5	384
<b>EU Average</b>	116.3	8.8	648

## **Table 1: Population density and proportion of land mass developed in UK and six comparison countries**

Neither is the UK especially densely populated. The UK's population density, though higher than the EU average, is similar to that of Germany and lower than comparable countries such as Belgium, Japan, The Netherlands and South Korea.

As a result, though the UK as a whole is not especially densely populated, that population is crowded into a far smaller space *within* the country. This may explain why the UK population so powerfully overestimates the extent of development in the UK: according to an Ipsos MORI poll conducted in 2012,

“Just under one in ten English adults (9%) think that three-quarters or more of the country is built on and 63% think that more than a quarter is developed, much higher than the true proportion of a tenth.”<sup>6</sup>

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6 *Public over-estimate extent of past development, but welcome more*, Ipsos MORI, 9 May 2012, <http://www.ipsos-mori.com/researchpublications/researcharchive/2961/Public-overestimate-extent-of-past-development-but-welcome-more.aspx>.



## 2. Green Belt policy in England

The National Planning Policy Framework (NPPF) states that

“The Government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence.”<sup>7</sup>

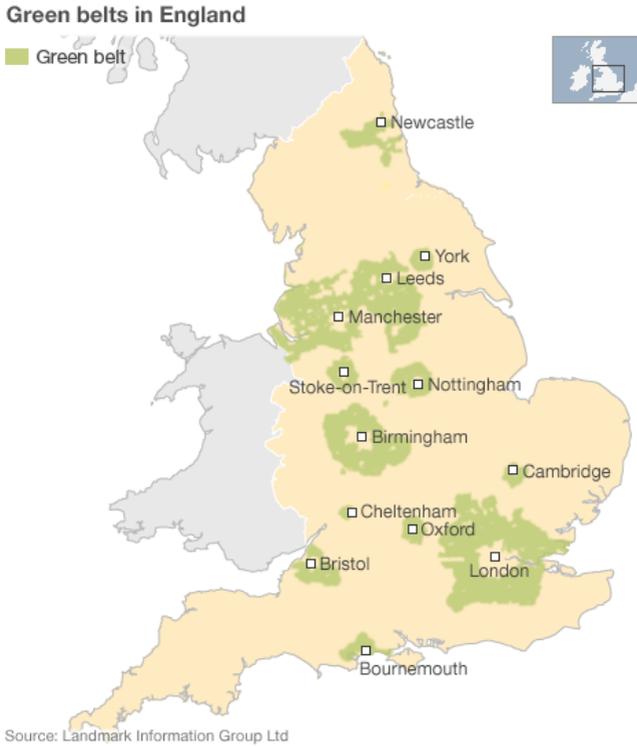
England’s Green Belts extend over 1,639,090 hectares, around 13% of the land area of England. This figure has more than doubled since 1979, when England had just 721,500 hectares of Green Belt (an increase of 121%). Green Belts take up more than three times as much land as every man-made structure in the country and dwarf the cities that they are designated to protect.<sup>8</sup>

An official map of Green Belt land is not easily available. The government only produces one such map, and it is not available in electronic format. Figure 2 is a reproduction of a map produced by Landmark Information Group for the BBC.

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7 DCLG, *National Planning Policy Framework*, Crown Copyright 2012.

8 DCLG, *Local Planning Authority Green Belt: England 2012/2013*, op. cit.



**Figure 2: Green Belts in England<sup>9</sup>**

The NPPF sets out five purposes for the Green Belt. Each of the five purposes are built on highly contentious foundations, and are worth considering in some detail. We consider each in turn.

**1. To assist in safeguarding the countryside from encroachment**

Underlying Green Belt policy is a belief in a rigid distinction between the rural and the urban, but there is no agreed definition as to what constitute ‘rural’ and ‘urban’ areas. Thus the distinctions lack clarity and consistency: in 2007 Scott et al found that government departments were using no less than 30 different

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9 BBC Online, <http://www.bbc.co.uk/news/magazine-14916238>.

definitions of 'rural';<sup>10</sup> elsewhere bodies may simply use a 'you know it where you see it' distinction.

Davoudi and Stead (2002) find that modern attitudes towards the urban-rural distinction are rooted in the Industrial Revolution.<sup>11</sup> Essex and Brayshay (2005) argue that these were exacerbated in the 1920s and 1930s by "radical thinkers" such as Ebenezer Howard, Patrick Geddes, and Charles Fawcett who posited a conflict between "urban" and "rural" interests. They argued that these conflicts could only be resolved by regional planning bodies. Yet by the time of the Town and Country Planning Act (1947), "regional planning ... had fallen almost entirely from favour", leading to the establishment of administrative counties and entrenching the assumed distinction between urban and rural areas.<sup>12</sup> This may explain why Wannop and Cherry (1994) find that the urban-rural distinction came to be seen as coterminous with administrative boundaries: "The practice of town (and by implication regional) planning was intimately bound up with local authority boundaries and functions - and has remained so over the ensuing 70 years."<sup>13</sup>

The reification of the distinction between rural and urban emerged in post-war planning legislation, which separated rural planning for agriculture and forestry from town and country planning.<sup>14</sup> Scott et al explain:

'The rationale ... was ... the vulnerability of the UK to food blockades during the Second World War and a reaction against the rapid suburbanisation in previous decades. In effect two planning systems were born, complete with different agencies, procedures and remits for the management of rural and urban space. Crucially, rural space was to lie outside formal planning controls with the majority of agricultural and forestry operations falling under "permitted development".

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10 Alister Scott, Alana Gilbert & Ayele Gelan Macaulay, *The Urban-Rural Divide: Myth or Reality?*, SERG Policy Brief no. 2, Macaulay Institute, 2007.

11 Simin Davoudi and Dominic Stead, "Urban-Rural Relationships: An Introduction and Brief History", *Built Environment*, Vol. 28, No. 4, Urban-Rural Relationships (2002), pp. 268-277.

12 Stephen Essex and Mark Brayshay, "Town versus Country in the 1940s: Planning the Contested Space of a City Region in the Aftermath of the Second World War", *The Town Planning Review*, Vol. 76, No. 3, 2005, pp. 239-264.

13 Urrlan Wannop & Gordon E. Cherry, "The development of regional planning in the United Kingdom", *Planning Perspectives*, 9:1, 29-60, 1994.

14 N R Curry, *Countryside Planning: A look back in anguish*, Inaugural Lecture, Cheltenham and Gloucester College of Higher Education, 1993.

‘This separation brought about increased tension between town and country dwellers, particularly with respect to growing demands for access and enjoyment of the countryside by urbanites. Increasing pressure led to legislation for the creation of national parks – the 1949 National Parks and Access to the Countryside Act – and the establishment of new bodies charged with nature conservation and recreation.’

With the benefit of hindsight, this looks at best quaint and at worst naive. There are 13 times as many vehicles in the UK as there were in 1950.<sup>15</sup> The contribution of agriculture to the UK economy has shrivelled while almost all the towns and villages of lowland Great Britain have become exurbs, acting as dormitory towns for the major economic centres.

Notions of urban and rural present a false dichotomy that has perpetuated misguided economic policies. In particular, it has encouraged UK and European farm policies that protect inefficient UK farmers from foreign competition at the cost of increased food prices and higher taxation for all British households. In addition, it has exacerbated the UK’s planning crisis by encouraging the protection of “rural” land adjacent to thriving cities. It is hard to imagine a less efficient use of land than growing rapeseed in fields around Romford.

## **2. To check the unrestricted sprawl of large built-up areas**

The flipside of “rural encroachment” is “urban sprawl”, the notion that cities spread in an ungainly manner across the land. The language of urban sprawl is extremely loaded: why not “urban spread” or “urban expansion”, or even “human development”? As Levine (1997) observes, one person’s “sprawl” is another person’s home.

The concept relies upon the presumption of a rigid distinction between urban and rural, which we have questioned above. We shall focus here on whether “sprawl” is real and whether it is necessarily bad.

Like the distinction between urban and rural, the term “urban sprawl” is “cloudy

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<sup>15</sup> *Licensed vehicles by tax class, Great Britain, annually: 1909 to 2013*, Table VEH0103, Department of Transport, 11 December 2014.

and confused”.<sup>16</sup> Peiser (2001) finds that “The term is used variously to mean the gluttonous use of land, uninterrupted monotonous development, leapfrog discontinuous development and inefficient use of land.”<sup>17</sup> These are not just inconsistent; they are contradictory. For example, “uninterrupted development” is by definition the opposite of “discontinuous development.” Thus, while many may conceive of urban sprawl as referring to ribbon development or continuing suburban housing, in the US (where the term originated) it is more often used to refer to “the *lack of continuity in expansion*”<sup>18</sup> (emphasis added); as an area develops, “sprawl patterns imply that the urbanised area is larger than it otherwise would be because undeveloped tracts remain interspersed among developed subdivisions”.<sup>19</sup>

This is noteworthy not just because it highlights a lack of an agreed definition. Defining urban sprawl as a pattern of development that leaves intermediate patches of land undeveloped suggests that Green Belt policy is not the solution to, but the cause of, the very ill it is supposed to resolve. Green Belt policy has prevented the expansion of metropolitan areas and thus encouraged “leapfrog discontinuous development”: for example, the expansion of Dartford, Guildford, High Wycombe and Watford (among others) has been rendered necessary because of limits on the expansion of London boroughs such as Havering, Bromley, Kingston and Harrow. What is more, there is every reason to believe that maintaining green space *within* expanding cities is what residents actually desire.

Talk of “gluttonous” and “inefficient” use of land is certainly consistent. However, it is entirely dependent upon a presumption that individuals should not be allowed to enjoy greater amounts of space. It echoes the demand-management mind-set of the post-war era that sought to ration supply rather than allow it to expand to meet demand.

Demand for domestic space is in fact highly income elastic.<sup>20</sup> It is both common

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16 Richard Peiser, “Decomposing Urban Sprawl”, *The Town Planning Review*, Vol. 72, No. 3, 2001, pp. 275-298.

17 Ibid.

18 D E Mills, “Growth, speculation and sprawl in a monocentric city”, *Journal of Urban Economics*, 10, pp. 210-26.

19 Richard Peiser, “Density and urban sprawl”, *Land Economics*, 65, 193-204, 1989.

20 Cheshire, P. C. and Sheppard, S. (1998), “Estimating demand for housing, land, and neighbourhood characteristics”, *Oxford Bulletin of Economics and Statistics*, vol. 60, pp. 357-82.

and understandable that people wish to convert increasing levels of wealth into higher domestic space. The advantages of a 4m by 4m living room over a 3m by 3m living room are obvious; so is the desire for each child in a household to have their own bedroom; for a separate study; for a family to have more than one bathroom; *et cetera*. Not sharing a wall with one's neighbour provides additional peace and privacy, both clear amenities. So does having a private garden. The suggestion that a semi-detached house with a 20m garden is somehow greedy is a normative position that is at odds with popular opinion. Needless to say, it is also at odds with the lifestyles of those who are its greatest advocates.<sup>21</sup>

Even the desire for a second home is neither unusual nor reprehensible. Around 1.8m Swedes (a fifth of all households) own a second home (the famed Sommerhus),<sup>22</sup> while in the recent past it was common for the middle classes to own both town houses and country homes (a practice still popular with Members of Parliament who are otherwise champions of high-density living, defenders of Green Belts and the scourge of second home owners).

Like it or not (and the urban planners generally do not), most people's ambition is a detached family home with its own outdoor space. By contrast, the preference of planners and politicians for increased urban density is generally unpopular. It also puts increased pressure on green space within the existing confines of the city.

Gordon and Richardson argue that policies designed to prevent or reverse decentralisation of cities are neither feasible nor desirable.<sup>23</sup> They also find no consistent evidence that suburbanisation is "wasteful".<sup>24</sup>

Peiser summarises the concept of urban sprawl as follows:

"The term 'urban sprawl' is ... used loosely to refer to all that is bad about

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21 The author suggests that, in future, those advocating high density urban living or defending urban containment policies should be encouraged, in the interests of full disclosure, to state the size of their own home and the density of their own neighbourhood.

22 "The Swedish summer house – a love affair," <https://sweden.se/culture/the-swedish-summer-house-a-love-affair/>.

23 P Gordon and H W Richardson, "Are compact cities a desirable planning goal?", *Journal of the American Planning Association*, 63, 95-106, 1997.

24 P Gordon and H W Richardson, "Where's the sprawl?" (Letters to the editor), *Journal of the American Planning Association*, 63, 275-78, 1997.

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urban growth, and narrowly to describe specific aspects of urban growth which are considered undesirable.... The problem with some of these definitions is that they are based on misconceptions about how the land market operates. Since their premise is wrong, the policies they engender are often counter-productive.”<sup>25</sup>

Green Belt policy is the epitome of that counter-productive policy.

### **3. To preserve the setting and special character of historic towns**

### **4. To prevent neighbouring towns merging into one another**

We see no practical difference between “preserving the setting and special character of historic towns” and “preventing neighbouring towns merging into one another”. The setting and special character of historic towns is achieved through a combination of isolating the town from its neighbours and preventing its growth. That Green Belts exist to prevent towns from growing is axiomatic and thus circular: one cannot justify a policy that seeks to limit urban growth on the grounds that urban growth needs to be limited. We shall therefore focus on preventing neighbouring towns merging (“conurbation”).

By attempting to prevent conurbation, government policy seeks to prevent cities from emerging spontaneously. Most of our modern cities grew through exactly this method. The British Library describes the growth of London thus:

“London remained essentially within [its] walls until 1550... Before 1680 the ancient towns and villages now absorbed in Greater London were... like stars surrounding the central sun... Road surfaces improved considerably from the late 18th century. Coaches began to run regularly between the centre of town and the outlying villages and it became possible for businessmen to live permanently in their country villas with their families and commute on a daily basis. Nevertheless, despite their increasing integration with London, most villages were still surrounded by fields in 1850... London more than doubled in size and population between 1851 and 1901... Railways arrived on the fringes of London

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25 Richard Peiser, “Decomposing Urban Sprawl”, op. cit.

from 1836...”<sup>26</sup>

Over time, the gaps between these villages were filled in, showing no particular reverence for the “setting and special character of historic towns” and villages. The boroughs of Brent, Camden, Hackney, Harrow, Islington, Lambeth, Lewisham, Wandsworth *et cetera* exist only because of in-fill development. Meanwhile, the absorbed towns and villages have become important parts of the character of suburban London: Dulwich, Highgate, Pinner, Walthamstow and Wimbledon are just some of the suburban areas of London that retain a distinctive village feel. Middlesex county council and the Middlesex courts of quarter sessions were held in Middlesex Guildhall, in Parliament Square, until the county’s abolition in 1965. Surrey County Council continues to sit in Kingston, now a London Borough.

A similar tale can be told about other major conurbations. From the beginning of the 19th century Manchester began expanding at a phenomenal pace, encompassing previously separate towns. This entirely unplanned process made Manchester “without challenge the first and greatest industrial city in the world”,<sup>27</sup> and by the mid-19th Century Manchester and its immediate satellites had merged into a single conurbation. A similar process has seen the merger of Chatham, Maidstone, Rainham and Rochester, home to more than a quarter of a million people.

The conurbation of urban areas is a result of spontaneous, organic development. We acknowledge, however, that there are at least two caveats to this spontaneous growth. Firstly, in some very limited cases there may be good reason to preserve the setting and special character of historic towns. The discreet setting of Tewkesbury in Gloucestershire, for example, would be destroyed if it were to be absorbed by a neighbouring town. However, England’s existing Green Belts are largely designed to contain major cities rather than protect heritage towns. While the Avon Green Belt may serve a purpose in protecting Bath from encroachment by Bristol, there are few genuinely significant heritage towns that are under threat in this way. Even where there are, a far narrower belt than currently exists would serve.

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26 British Library, *London: a Life in Maps*, <http://www.bl.uk/onlinegallery/features/londonin-maps/homepage.html>.

27 Peter Hall, *Cities in Civilization*, Pantheon, 1998.

Secondly, there is clearly a risk that the spontaneous merger of towns may come at the cost of accessible green space. We therefore acknowledge the need for planners to consider the preservation of amenity space as towns merge. This could be achieved through the creation of local and regional (e.g. “Country”<sup>28</sup>) parks.

### **5. To assist in urban regeneration, by encouraging the recycling of derelict and other urban land**

The suggestion that Green Belt policy exists to “assist in urban regeneration” is a hangover from the early- to mid-20th Century era of slum clearances and post-war reconstruction. This was the period when there was genuine hope for, and belief in, the command economy – when “planning” meant not just control of land-use but active management of the whole economy. In such a context, it appeared only logical that legislation and regulation that forced developers to renovate existing urban sites rather than expand into new land would lead to an urban renaissance.

As Cheshire (2009b) notes,

“[A]s originally conceived the process of Town and Country Planning was intended to decant people from the high density slum conditions of large industrial cities and allow greener and lower density development in New Towns and city extensions. Early plans earmarked land to accommodate then expected population growth. Unfortunately ... ‘urban containment boundaries’ (such as the original boundaries of Greenbelts or Areas of Outstanding Natural Beauty) largely reflected the transport realities, the incomes, the distribution of population and the ways of life as they existed in 1947 - two generations ago.”<sup>29</sup>

Urban containment policies such as the Green Belts were seen as powerful tools with which to achieve urban renewal by forcing developers to focus on replacing disease-ridden back-to-back housing and tenement buildings with modern homes instead of building new suburbs. But they also depended on the creation of New

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28 For details on the location and role of Country Parks, see <http://www.naturalengland.org.uk/ourwork/enjoying/places/countryparks/>.

29 Paul Cheshire, *Urban containment, housing affordability and price stability – irreconcilable goals*, SERC Policy Paper 4, SERC and LSE, 2009.

Towns. Driving homeowners further away from urban centres had substantial environmental and welfare effects (see page 14), but New Towns at least ensured that sufficient housing land was made available to meet future demand. New Towns were thus the essential “other side of the coin” to urban containment in the first 25 years after the Town and Country Planning Act (1947). However, since 1970 no New Towns have been designated.<sup>30</sup>

Instead, planners have sought to pack ever more new homes into existing urban boundaries. In so doing they have re-cast increasing urban density as the *means* to achieve urban regeneration. For example, the London Plan contains provision for “enhancing the vibrancy of town centres through higher density, retail, commercial and mixed use development including housing...” Urhahn Urban Design et al (undated) provides both a justification for this approach and seven examples of potential medium density developments.<sup>31</sup> As Cheshire et al (2014) note,

“We now have a planning system directed to achieve precisely the opposite of what was originally conceived in 1947 – allow the mass of the urban population more space and a greener environment in which to live.”<sup>32</sup>

Despite Green Belts being seen as “a tool for positive town and country planning,”<sup>33</sup> the notion that controlling urban sprawl will generate inner-city redevelopment has never been proven.<sup>34</sup> While Green Belts have constrained the supply of housing land, only some urban centres have enjoyed a renaissance; in other instances, inner cities have deteriorated further, while the leapfrogging effect

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30 Hope for new towns was revived with the proposed Eco-Towns under the Brown administration. However, most of these new towns fell to local opposition, and the programme as a whole has seen substantial funding cuts. It remains to be seen whether any of these towns get off the ground. Meanwhile the coalition government has announced its intention to build a new town of 15,000 homes at Ebbsfleet in Kent. This compares to our an estimated shortfall of at least 100,000 new homes a year.

31 Urhahn Urban Design et al, *Housing Intensification in seven South London town centres*, Design for London, undated, <https://www.walthamforest.gov.uk/documents/ke51-housing-intensification-in-seven-south-london-town-centres.pdf>.

32 Paul C Cheshire, Max Nathan, Henry G Overman, *Urban economics and urban policy: challenging conventional policy wisdom*, Edward Elgar, London 2014.

33 RTPI, “Green belts #4”, *Housing & Planning: Government Proposals*, 12th September 2012.

34 A Downs, *New Visions for Metropolitan America*, Washington, DC, The Brookings Institution, 1994.

of driving development beyond the urban containment boundary has left inner-city residents even further removed from jobs and shops.



### 3. Supposed benefits of Green Belts: access to green space and environmental goods

In the previous section we considered the stated aims of Green Belt policy. However, public support for Green Belts only weakly aligns with the five policy objectives set out by DCLG. Supporters see Green Belts as providing access to rural green space for residents of cities, and protecting the environment from harm (e.g. preventing pollution or greenhouse emissions; protecting rare species or animal habitats).

For example, the Campaign for the Protection of Rural England (CPRE) claims that Green Belts “provide a breath of fresh air for 45 million people” and are areas where “damaged and derelict land can be improved and nature conservation is encouraged”.<sup>35</sup>

None of these correspond to the government’s five bases of Green Belt policy. They do more closely align with the secondary uses of the Green Belt defined in *Planning Policy Guidance 2: Green Belts*:

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<sup>35</sup> *Green Belts: breathing spaces for people and nature*, CPRE website, <http://www.cpre.org.uk/what-we-do/housing-and-planning/green-belts/the-issues>, accessed 12 August 2014.

“Once Green Belts have been defined, the use of land in them has a positive role to play in fulfilling the following objectives:

- to provide opportunities for access to the open countryside for the urban population;
- to provide opportunities for outdoor sport and outdoor recreation near urban areas;
- to retain attractive landscapes, and enhance landscapes, near to where people live;
- to improve damaged and derelict land around towns;
- to secure nature conservation interest; and
- to retain land in agricultural, forestry and related uses.”

However, PPG2 has been superseded. What is more, even when it was in effect it was categorical in stating that:

“The extent to which the use of land fulfils these objectives is however not itself a material factor in the inclusion of land within a Green Belt, or in its continued protection. For example, although Green Belts often contain areas of attractive landscape, *the quality of the landscape is not relevant to the inclusion of land within a Green Belt or to its continued protection*. The purposes of including land in Green Belts are of paramount importance to their continued protection, and should take precedence over the land use objectives” (emphasis added).<sup>36</sup>

Furthermore, the notion that Green Belts are primarily natural environments and woodland is fanciful. The CPRE sees “Green Belt land... providing us with trees and the undeveloped land,” while Eric Pickles has described them as the “vital

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36 *Planning Policy Guidance 2: Green belts*, Crown Copyright 1995 (Amended 2001), ISBN: 0 11 753037 9.

green lungs around... towns and cities”.<sup>37</sup> In reality, the majority of Green Belt is farmland. Furthermore, while the CPRE argues that “Instead of reducing this green space, we should be using it to its best effect”, in reality the preservation of Green Belt land places urban green space under ever greater threat.<sup>38</sup>

### Access to rural green space

There is no question that access to green space has significant and measurable amenity value. Gibbons et al (2001) find that

“Living within or in close proximity to desirable natural areas and environmental resources ... provide a large number of positive welfare benefits to residents, including numerous opportunities for recreation and leisure... In England, just under 50% of the population use public urban green spaces at least once a week (Defra 2009) while just under 90% said they used their local parks or open spaces regularly (DCLG 2008).”<sup>39</sup>

The crucial phrase here is “within or in close proximity to”. The amenity value of green space decreases sharply over distance – studies from around the world suggest that green space ceases to have a positive amenity beyond around 1km. Barker (2004) concludes that the benefits we derive from urban fringe Green Belt is far smaller than that we derive from urban core public space (see table 2).<sup>40</sup> This contrasts sharply with the claim by Paul Miner, senior planning campaigner for the CPRE, that “Green belt land... is usually very valuable to local communities for recreation and access to green areas.”<sup>41</sup>

Land Type	Present benefit (per hectare per year, in 2001)
Urban core public space (city park)	54,000
Urban fringe green belt	889

37 Councils must protect our precious green belt land, DCLG press release, 4 October 2014.

38 *Green Belts: breathing spaces for people and nature*, op. cit.

39 Steve Gibbons, Susana Mourato and Guilherme Resende, *The Amenity Value of English Nature: A hedonic price approach*, SERC Discussion Paper 74, 2001.

40 Kate Barker, “*Review of Housing Supply. Delivering Stability: Securing our Future Housing Needs*,” HM Treasury, 2004.

41 “Swathes of green belt land sacrificed” *The Telegraph*, 24 November 2012

Urban fringe forested land	2,700
Rural forested land	6,626
Agricultural extensive	3,105
Agricultural intensive	105
Natural and semi-natural wetlands	6,616

**Table 2: Benefits from different land uses in the UK (Barker, 2004)**

Sacrificing urban green space so as to preserve Green Belts, though a necessary result of densification, is thus highly counter-productive. Urban green space is highly accessible and is enjoyed by large numbers of people. By comparison, Green Belt land is of benefit to far fewer people. Green Belt policy is also highly regressive, as access to the Green Belt strongly correlates with household income due to the proximity effect on house prices; Green Belt policy preserves large amounts of plentiful green space around rich people at the expense of rare green space near poorer people. This leads Cheshire (2014a) to note that

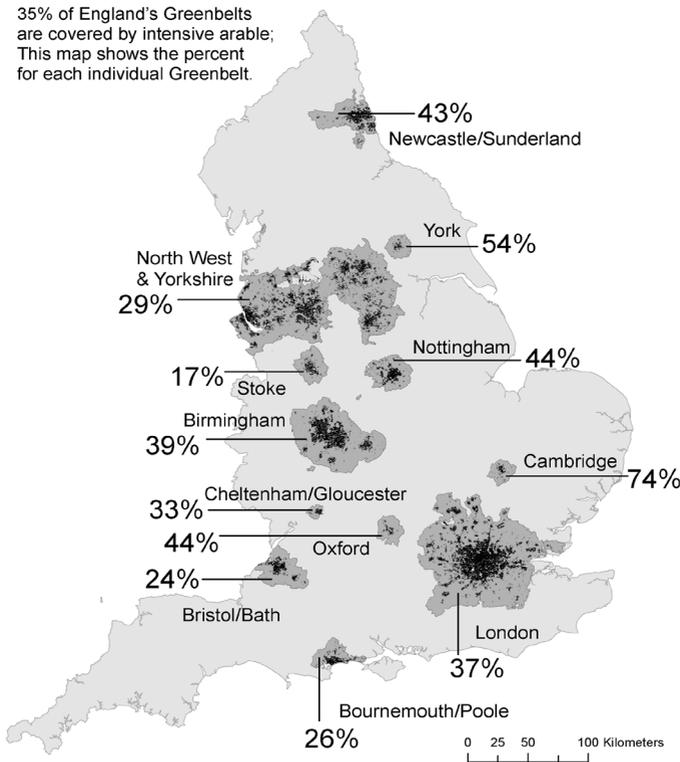
“Consumption of a wide range of important goods and amenities, often thought to be provided free, actually is conditioned on individual incomes and wealth because the value of these attributes is capitalised into house prices... [T]he amenity values generated by Greenbelts differentially benefit richer house owners because the value of Greenbelt access is fully reflected in house prices. As a result only richer households can afford to purchase the flow of benefits that are associated with preserving the Greenbelt. The outcome – perhaps paradoxical to planners who are culturally egalitarian – is that *the net effect seems to be that Greenbelts produce an even more unequal distribution of welfare* (measured as equivalent income) than the incomes of home owners themselves” (emphasis added).

## Environmental Protection

Amati and Taylor (2010) argue that constraining urban residents within a small urban land plot leads to decreasing numbers and sizes of city gardens, which have high biodiversity. By comparison, agricultural land, in particular intensive agriculture, has low biodiversity and generates negative net environmental benefits. Cheshire (2014a) therefore suggests that Green Belt policy might

have negative overall environmental effects. On the one hand, it protects less environmentally important farmland at the expense of more biodiverse urban green space. On the other hand, it separates residents from places of employment and retail outlets, increasing the distances they have to travel in order to reach their destination. This leads to increased energy consumption and therefore to increases in atmospheric pollution and greenhouse gas emissions.<sup>42</sup>

Figure 3 reproduces Cheshire’s alternative Green Belt map, showing the built up areas within their Green Belts and providing a figure alongside for the proportion of the Green Belt that is devoted to intensive arable land. Typically, the figure is between a quarter and a half, the only exceptions being around Stoke (17%) and Cambridge (74%).



**Figure 3: Map of Green Belt land showing relative size of built area and Green Belt, with figures for intensive agricultural land (Cheshire et al, 2014).**

<sup>42</sup> Cheshire, Paul, *Turning Houses into Gold: the Failure of British Planning*, CentrePiece Spring 2014.

## Health benefits of the Green Belt

This chapter has considered the two popular reasons for supporting Green Belt policy. A third area that needs to be considered is the impact on public health. The public health aspect is rarely a major part of the public debate and it is not related to any of the five policy justifications set out in the previous chapter. However, as there is nowhere more appropriate to consider this issue, we will discuss it here.

Sturm and Cohen (2004) conduct a detailed empirical analysis of the public health effects of “sprawl” in the United States, noting that

“While empirical evidence to support the popular assumption that suburban sprawl is bad for one’s health remains limited, plausible pathways exist through which suburban sprawl can affect health. Pathways that have been documented include increased traffic fatalities, increased air pollution from motor vehicles, decreased walking trips and a higher body mass index.”

They conduct a cross-sectional analysis of survey data on reported health with an index of what they define as “suburban sprawl”. In fact, it would be more accurate to say that they assess the health effects of low-density suburban housing with poor accessibility to other services rather than “sprawl” *per se*; it is not clear from their paper that displacing this form of housing from areas adjacent to the city to satellite towns further removed from the city changes the results.

Their “study provides some initial support to the hotly debated claim that suburban sprawl is bad for [physical] health...” but “In contrast to prominent hypotheses, [Sturm and Cohen] found no adverse effects on mental health...” These findings are partially disputed by Eid et al (2007), who “find no evidence that urban sprawl causes obesity”.

Nonetheless, Sturm and Cohen’s findings do suggest that the *form* that development takes may have important health outcomes. We should not assume that any and all building is inherently good. However, as they note themselves, “It is particularly important to determine whether these findings from the USA generalize to other developed countries.” There are at least two reasons why these

results may not apply to the UK.

Firstly, the style of suburban development common in the US is a function of American's love-affair with the car, which is reflected in housing being far removed from schools, shops, parks *et cetera*. Suburbs in the UK have traditionally had their own high streets and facilities within walking distance, though this is beginning to change – perhaps as a result of existing planning constraints. It is important that future suburbs retain the mix of uses so that facilities are easily accessible by foot. Similarly, while Sturm and Cohen find that “Sprawl... leads to more air pollution”, this could be ameliorated by providing suburban areas with sufficient public transport, which is uncommon in the US but was the model around which (for example) the Metroland suburbs were developed in the 1930s.

Secondly, overall property in the US is substantially more affordable than in the UK. This would tend to reduce the negative welfare (and thus health) impacts that we discuss in the next chapter. The British case is one where the negative health implications of suburban living would need to be traded off against the negative welfare (including health) implications of high priced, low quality housing, food and other services.

Nonetheless, they acknowledge that there are important lessons to be learnt from research into the impact of suburban forms on public health. This emphasises the need to have some form of holistic approach to planning, even if it does not imply that the current approach is optimal. Thus, the Royal Town Planning Institute (RTPI, 2014b) notes that

“The lack of effective and proactive planning – in the broadest sense – for urbanisation can result in unhealthy places. If well-planned, however, cities can not only prevent many unhealthy outcomes but also promote better wellbeing, quality of life and opportunity for all.”



## 4. The welfare costs of the Green Belt policy

We have so far focused on questioning the assumed benefits of Green Belt policy. We now turn to the costs that urban containment imposes upon households and businesses. In so doing, it is important to note that business costs ultimately impact upon households.

We focus on the following areas:

1. Increased cost of accommodation
2. Packing households into smaller spaces
3. House price volatility
4. Increased cost of business premises
5. Environmental and welfare costs
6. Planning without coordination

### **Increased cost of accommodation**

Green Belt policy imposes a strict limit on the supply of developable land around

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major urban areas. This constrains development and thus puts upward pressure on the purchase and rental prices of homes. This has a negative effect on people's welfare. Looking at housing costs first, real house prices increased by 350% between 1955 and 2002.<sup>43</sup> This compares unfavourably with Germany and the Netherlands, despite the former being as densely populated, and the latter far more densely populated, than the UK (see figure 1). Cheshire (2009b) notes that

“In the Netherlands the price [of housing] per square metre was 45 percent less than in the UK... [In] Germany... the real price of houses fell in both the decades of the 1980s and 1990s and was completely stable over the whole period 1971 to 2002, compared to an annual percent age rate of increase in the UK of 3.6 – the highest for any OECD country... In the Netherlands real house prices rose during the 1970s, fell at an average rate of 2.2 percent a year during the 1980s but then rose sharply in the 1990s.”

Evans and Hartwich suggest that high housing costs also hinder wealth creation. Housebuilding is a process that adds significant value to an asset (land); the sale of those houses then transfers that asset to people who, over time, are able to build up equity that they can use for other investments. As Simon Wolfson says in his foreword to their report, “If wealth creation is about making things of value, and for most people their homes are their most valuable possession, then a system that rigorously prevents the construction of better homes must inhibit wealth creation.”<sup>44</sup>

Increasing land and house prices may also have led to decreases in social mobility. Rapid increases in land prices benefit existing landowners at the expense of those who are yet to own property. This has a profound inter-generational effect in that parents who already own property are in a better position to help their children acquire property than parents who do not own property. Thus property-ownership becomes related to individual's circumstances at birth rather than their own productivity. The trend in increasing housing prices and decreasing social mobility can be expected to continue.

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43 Paul Cheshire & Stephen Sheppard, “The Introduction of Price Signals into Land Use Planning”, Urban/Regional 0410002, EconWPA. [http://www.lse.ac.uk/geographyAndEnvironment/research/Researchpapers/118\\_Cheshire.pdf](http://www.lse.ac.uk/geographyAndEnvironment/research/Researchpapers/118_Cheshire.pdf).

44 Alan W. Evans & Oliver Marc Hartwich, *The Best Laid Plans: How Planning Prevents Economic Growth*, Policy Exchange, London 2007.

## Packing households into smaller spaces

Increased housing costs reduce the welfare of households in one or both of two ways: they reduce the amount of disposable income that can be devoted to other purposes and/or they reduce the amount of space available to households. Nearly a quarter of a century ago, Professor Alan W. Evans described modern British housing as rabbit hutches built on postage stamps.<sup>45</sup> Two decades later, writing with Oliver Hartwich, he argued that the high cost of urban housing drives down the quality of life, since people have to live in smaller houses.<sup>46</sup>

We noted above that demand for domestic space is highly income elastic (see page 8). Comparing the space available to households in the UK, Germany and the Netherlands, Cheshire (2009b) finds that

“Although the highest density country of any size in Europe and a rich country too, housing in the Netherlands (and in Germany) is both of high quality and significantly cheaper relative to incomes than is the case in England... [N]ew build houses were 38 percent larger in the Netherlands and 40 percent larger in Germany than in the UK.”

## House price volatility

Hilber and Vermeulen (2010) find “unambiguous causal evidence demonstrating that regulatory supply constraints... have increased house price volatility.”<sup>47</sup> The British housing market has exhibited extreme price volatility over the past half century. Supply constraints such as urban containment boundaries are not the sole cause of this volatility, but the frequency and range of the volatility is greater when supply is constrained. This not only transfers wealth between groups (in particular, those that get lucky on the upswing and those that are unlucky on the downswing) but also creates volatility in the wider credit market.

Hilber and Vermeulen (2012) describe the “extraordinary” price volatility in the UK housing market:

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45 Alan W. Evans, “Rabbit Hutches on Postage Stamps: Planning, Development and Political Economy”, *Urban Studies*, Vol. 28, No. 6, 1991, pp853-870.

46 Alan W. Evans & Oliver Marc Hartwich, *The Best Laid Plans: How Planning Prevents Economic Growth*, op. cit.

47 Hilber, Christian A.L. and Vermeulen, Wouter, *The impacts of restricting housing supply on house prices and affordability, Final report*, Department for Communities and Local Government, 2010.

“During the last full real estate cycle real house values in the UK as a whole first rose by 83 percent during the upswing of the 1980s; they subsequently declined by 38 percent during the downturn of the first half of the 1990s. This swing is substantially larger than that of the most volatile metro area in the US during the same cycle period: real values in Los Angeles rose by 67 percent and declined by 33 percent.”<sup>48</sup>

This has important macro-economic consequences: higher house price volatility may lead to increased volatility of consumption and so greater volatility in the economy as a whole.

### Increased cost of business premises

Increased costs for businesses push up prices, which has the effect either of further reducing real disposable incomes for households, or of shifting the balance between domestic and overseas producers, thus putting UK businesses at a competitive disadvantage. This in turn may reduce employment and/or put downward pressure on wages. Green Belt policy thus impacts on household spending both directly, by increasing the cost of accommodation, and indirectly, by increasing the cost of other consumer goods and reducing household incomes. Cheshire has calculated this welfare cost as the equivalent of a 3.9% tax on urban incomes.<sup>49</sup>

In the case of urban businesses, Cheshire and Sheppard (2002) calculate that the amount of “regulatory tax” for businesses (i.e. “the difference between the costs of building an additional unit of space and the price of that space”) is substantially higher in the UK than in other European countries, as evidenced by table 3.<sup>50</sup>

Selected European cities	1999	2005	Average 1999-2005
London - West End	7.62	8.37	8.00

48 Hilber, Christian A.L. and Vermeulen, Wouter, *The Impact of Supply Constraints on House Prices in England*, CPB Discussion Paper 219, Netherlands Bureau for Economic Policy Analysis, 2012.

49 Paul Cheshire, *Urban land markets and policy failures*, Land Use Futures discussion papers, Foresight, Department for Business Innovation and Skills, London, 2009.

50 Cheshire, Paul; Vermeulen, W., *Land markets and their regulation: the welfare economics of planning* In Geyer, H.S., *International handbook of urban policy, vol. II: issues in the developed world*. Cheltenham, UK : Edward Elgar, 2009.

London - City	4.68	4.31	4.49
Frankfurt	5.44	3.31	4.37
Stockholm	4.28	3.30	3.79
Milan	2.07	4.11	3.09
Paris - City	2.35	3.75	3.05
Paris - La Defense	1.41	1.93	1.67
Barcelona	2.23	3.16	2.69
Amsterdam	2.12	1.92	2.02
Brussels	0.52	0.84	0.68

**Table 3: Estimated regulatory tax for UK office markets and selected European cities, as a percentage of marginal construction cost (adapted from Cheshire & Hilber, 2008).**

This has a pronounced negative impact on the UK's economic growth potential over and above that referred to above. Evans and Hartwich suggest that land-intensive industries, such as manufacturing, have declined rapidly, because many have fled the country to locate themselves in a country with lower land prices.<sup>51</sup> If correct, this would be a major challenge to the conventional view that deindustrialisation was the result of supply-side reforms and monetarist policies in the 1980s, instead suggesting that our land use planning laws bore a substantial amount of responsibility for the decline of UK manufacturing in the past half century.

### Other economic costs

The above highlights the direct costs to business, but there are further economic costs in the form of foregone economic activity. As Crafts (2011) explains:

“On grounds of economic efficiency, it is clear that a policy of liberalizing planning restrictions is highly desirable in any case.... It is not difficult to construct counterfactuals in which the equilibrium housing stock in England is at least 3 million bigger than at present and a transition from here to there could easily entail building 150,000 additional houses per year for quite some years with a direct impact on employment of

51 Evans and Hartwich, op cit.

around 750,000.”<sup>52</sup>

This would have a dramatic impact upon the UK economy. At the time of writing, almost 2 million people were unemployed.<sup>53</sup> Moving three quarters of a million of them into work would improve their own incomes, boost growth across the entire economy, and dramatically reduce the welfare bill, thus improving the government’s finances.

### **Environmental and welfare costs of Green Belt policy**

The problems listed so far in this chapter are functions of the planning system in general, of which urban containment policies are a particular example. Green Belts are a major contributor to these losses of welfare but they are not the sole cause. However, urban containment boundaries create additional problems that would not result if our land use planning system did not also institutionalise Green Belts.

Firstly, by imposing extremely rigid restrictions on land near the city irrespective of its environmental and amenity value, it potentially displaces development onto more valuable land beyond the Belt. Green Belt policy is concerned only with the *proximity* of the land to the urban boundary. It takes no account of the quality of the land itself. As such, Green Belts preserve low quality farmland near towns *at the expense of* more environmentally valuable land both within, and further removed from, existing towns.

Secondly, any displacement of development beyond the Belt necessitates the construction of more extensive transport infrastructure to convey residents to their jobs in the city. This has negative environmental effects. Firstly, Green Belt policy necessitates more transport infrastructure to link residents to places of work and to shops, thus resulting in more land being “tarmacked over” than would otherwise be necessary. It is one of the ironies of Green Belt policy that while it may have a negative effect on the amount of land available for housing, it *increases* the amount of land that needs to be developed for transport. Secondly, the longer commutes that result from Green Belt policy require more fuel and so create more

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52 Nicholas Crafts, *Delivering growth while reducing deficits: lessons from the 1930s*, Centre-Forum 2011.

53 Office of National Statistics, *A01 Labour market statistics summary data tables*, October 2014.

pollution and greenhouse gas emissions.

These longer commutes also impose welfare costs (i.e. reduce the wellbeing of individuals) because longer journeys are more costly both financially and in terms of the time spent commuting, which could otherwise be devoted to leisure or additional earning. Studies have found commuting to be negatively related to aspects of personal wellbeing such as life satisfaction (Stutzer and Frey 2008) and to mental health well-being (Robert, Hodgson and Dolan 2009).

## **Planning without coordination**

In our earlier report (Papworth, 2012) we noted that coordination was possible without formal planning structures. Conversely, Green Belt policy leads to additional problems because planning takes place without formal coordination. The RTPI (2014a) argues that

“The future well-being of communities and the creation of more and better jobs in a competitive economy and is being put at risk by the failure to integrate the provision of housing and necessary infrastructure and services across local authority boundaries.”

This is because Green Belts rarely impact solely on one local authority. Created in the context of the County Development Plans of the post war era, and later integrated within County Structure Plans in the 1970s and Regional Plans in the 2000s, Green Belts depend upon coordination across the belted area. With the abolition of regional planning under the Coalition government, there is a significant lack of coordination across local authorities, which allows each authority to prioritise protecting its Green Belt land while free-riding on the house-building of other authorities. Inevitably, this leads to under-supply of housing. The RTPI has expressed

“Serious reservations about whether you can usefully simply preserve green belt boundaries which were developed as part of joined up regional plans... unless you have agreement from the various local authorities affected about where new housing will go if it is not going in the green belt.”<sup>54</sup>

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54 RTPI, “Green belts #4”, *Housing & Planning: Government Proposals*.

In addition, Green Belts prevent the coordination of infrastructure and housing policy. Crossrail has brought dramatic improvements in accessibility to towns like Taplow, Iver and Shenfield (in the Community Secretary's constituency) without developers being able to build new towns near these stations.

# 5. Abolition or reform – the future of the green belt

The 2011 OECD economic survey of the UK criticised policies that restricted housing development, including green belts:

“The response of housing supply to demand in the United Kingdom has been one of the lowest among OECD countries over the last 20 years. Hence, making the land use planning system more flexible, more predictable and more responsive to market signals, without compromising its social and environmental objectives, is essential. Even though England is a high-density country, especially in the South, there is scope to make more land available for building houses. In particular, *Green Belts constitute a major obstacle to development around cities, where housing is often needed. Replacing Green Belts by land-use restrictions that better reflect environmental designations would free up land for housing, while preserving the environment*” (emphasis added).<sup>55</sup>

Below we outline three possible scenarios for solving the current housing crisis through changes to the Green Belt.

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55 OECD, *Economic Survey March 2011 United Kingdom Overview*, 16 March 2011.

## Abolish and Protect

The most obvious approach is to abolish the Green Belt as a classification. We noted in section 2 that Green Belt policy is based on erroneous assumptions, flawed concepts and ill-defined notions. There is no good reason to prevent urban areas from expanding; this would not threaten the overall “rural” nature of the UK, or even of its more densely populated regions. It would, however, enable towns once again to grow organically and spontaneously and people to live nearer to their jobs.

We recognise the validity of protecting substantial parts of the existing Green Belts, however. Abolition of the Green Belt is not intended to declare open season on ancient woodland, environmentally sensitive areas or areas that offer beautiful vistas or access to green space. Areas that provide genuine environmental or recreational goods should be protected. They do not need a Green Belt classification to protect them, however. We therefore recommend that a mixture of existing and new classifications be used to protect those undeveloped areas that are highly valued or important. This would include:

- Designation of high biodiversity, important habitats for wildlife, significant geological sites *et cetera* as **Sites of Special Scientific Interest and National and Local Nature Reserves, Special Protection Areas** and **Ramsar Sites**
- Designation of places of high scenic quality as **Areas of Outstanding Natural Beauty**
- The extension of **Metropolitan Open Land** to protect important open space currently covered by a Green Belt designation
- Additional protection for ancient woodland and areas of historic value
- The creation of new designations for **Sites of Local Environmental Importance** and Sites of **Local Recreational Value**, to be determined by local authorities.

The new local designations would provide for the protection of areas that local

people felt were significant to their community. This would need to be balanced against the provision of future housing need and structures would need to be put in place to prevent local councils using these new categories to simply recreate the Green Belts at local authority level – thus perpetuating the housing crisis, stifling development and deepening the collective action problem that pertains between local authorities.

It is not possible to quantify how much land would be realised for development as a result of a complete abolition of the Green Belt. While we know that there are 1,639,090 hectares of Green Belt land in England, we do not know how much of this would be protected under existing and new protective designations.

### **Declassify all intensive agricultural land**

An alternative to abolishing Green Belts as a category would be to remove all intensive agricultural land from the existing Green Belts. We saw in figure 3 that over a third of the Green Belt is devoted to intensive agriculture. Though in close proximity to existing urban centres, this land is of very low environmental and amenity value; intensive agricultural land has very low levels of biodiversity and is not generally accessible to the public. The public would anyway continue to have access to the two thirds of the former Green Belt that was of high environmental and amenity value.

If all intensive agricultural land lost its Green Belt designation, over half a million hectares of land would be released for development. This is about 40% as much land as is currently developed (including private domestic gardens) and would shrink the Green Belts to 1,065,409 hectares – nearly 50% larger than the Green Belt was in 1979.

Furthermore, if all this land were made available, only a fraction would be developed. Current estimates are that somewhat over 2.5 million new households will form over the next decade.<sup>56</sup> Approximately 1.4 million new homes would be

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<sup>56</sup> DCLG expects 2,672,000 new households will form in England over the period 2011-2021, of which 2,205,000 will be in England. *Table 401: Household projections, United Kingdom, 1961-2033.*

built even if current levels of house building were sustained.<sup>57</sup> Without a change in policy, these homes will be built within existing developable land. Even allowing for the release of former Green Belt sites, we would expect to see much of the existing build take place on the same sites; newly released Green Belt sites would for the most part provide additional capacity. There would undoubtedly be some migration, but overall we estimate that no more than a million homes would be built on former Green Belt land. This would require 20,000 to 25,000 hectares of land – just 4% to 5% of the land released (and less than 1.5% of current Green Belt land).<sup>58</sup>

Even allowing for additional supporting infrastructure and the possibility that new house-building would exceed demand, over nine tenths of the released land would remain undeveloped, in addition to over a million hectares of land that would remain Green Belt. Those areas that were developed would be no great loss.

### **Limited declassification of intensive agricultural land near Green Belt railway stations**

The aim of the above mechanisms is to remove the Green Belt designation from all land that is of low environmental and amenity value and then allow market processes to reveal where people would most want to see new homes. Professor Paul Cheshire at the LSE has offered an alternative proposal for London's Green Belt. Rather than remove the designation from a large quantity of land, planners would designate the 20,000 hectares for development. This requires planners making assumptions about where people would wish to live and only removing the Green Belt designation from those areas. While this prevents the full discovery process that markets permit, it does mean that the Green Belt designation could be preserved over 96% of London's Green Belt.

We are normally sceptical of the idea that planners are (better) able to make decisions on behalf of individuals. However, Cheshire offers a compelling justification for the choice of areas to be developed. Assuming that most of the

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57 The annual average for the period 2010-2013 was around 140,000 completions, of which 110,000 were in England. DCLG (2014), *Table 209: permanent dwellings completed, by tenure and country*, Crown Copyright.

58 Assuming typical densities of 50 or 40 homes per hectare. DCLG, *Land Use Change Statistics in England: 2011*, Crown copyright, 2013.

demand for housing will be from people who wish to easily access London for work, commerce and leisure, Cheshire proposes removing the Green Belt designation just on those areas of intensive agricultural land that that are already within walking distance of a railway station. He notes that:

“Barney Stringer of QUOD generated a beautiful map recently identifying all the land in London’s 514,000 ha Greenbelt which was within 800 metres of a station (a ten minute walk), was not built on and had no marker of environmental quality beyond being in the Greenbelt. Barney calculates these simple criteria give us 19,334 hectares of highly buildable land with good access to the highest paying jobs in Europe and no identifiable environmental cost at all. I am no fan of mechanical densities especially since one of the problems with making land so expensive is that houses and gardens are much too small; but applying the current norm of 50 houses to the hectare this would give us space for 996,700 houses.”<sup>59</sup>

Simply removing the Green Belt designation from all intensive agricultural land within 10 minutes’ walk of a railway station would provide space for an additional one million homes with easy access to central London.

Were we to be more ambitious and promote local cycling, making all stations more bicycle-friendly, we could re-designate all the agricultural land within 10 minutes cycle of a railway station, which would have vastly increase the number of new homes that could be built.

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59 Paul Cheshire, *Building on Greenbelt land: so where?*, SERC blog, 2014, <http://spatial-economics.blogspot.co.uk/2014/07/building-on-greenbelt-land-so-where.html>.



# Conclusion

“Green belt policy... was designed for a different time, and it is now working against the ideal of sustainable communities which hope to encourage people to work, rest and play in the same local area. As a result, there are areas of the region where the green belt is adding stress to the immediate transport network and inadvertently placing pressure for development on valuable areas of green space within urban areas” – House of Commons South East Regional Committee, 2010.<sup>60</sup>

England remains largely undeveloped: 90% of land in England is either green space or water; 13% of England is within the Green Belt. By comparison, just 9% of England is developed and half of that is made up of domestic back gardens. The level of built environment in the UK is not dissimilar to the EU average and is comparable to levels in Italy and Japan. It is significantly less than in Belgium, Germany and the Netherlands. The level of built environment per head of population is substantially lower than the EU average, which translates into smaller homes and less business space. Though the UK is relatively densely populated, it is not an extreme outlier.

If we were to build the 2 million homes that best estimates assume will be re-

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<sup>60</sup> South East Regional Committee, *Housing in the South East*, HoC 403 2009-10, House of Commons, 7 April 2010.

quired over the next decade it would take up just 0.5% of the landmass of England. If we were to build 1 million new homes on former Green Belt land in addition to the 1.4 million we are currently expected to build elsewhere, it would require just 1% of the Green Belt. These new homes could potentially all be within walking distance of existing commuter infrastructure.

The logic behind the creation and perpetuation of Green Belts is anyway flawed. Green Belt policy assumes a clear and rigid distinction between “rural” and “urban” that is neither defined nor consistent. It also assumes a concept of “sprawl” this is also ill-defined and contradictory. In defining urban development as “sprawl”, new homes, shops, leisure facilities and places of business and worship are characterised as a blight that needs to be contained. The preservation of discrete towns and the prevention of merger is an impediment to the natural and spontaneous growth of urban areas. While in some very limited cases there may be a reason to preserve a historic town in a discreet location, for the most part it would be better to allow natural accretion to take place while protecting access to green space through the creation and preservation of local and regional parks. The notion that Green Belt policy helps promote urban regeneration is not only mistaken, it is in fact counterproductive. Urban containment policies in many cases retard the development of towns and thus undermine their sustainability.

Two further errors cloud debates about the Green Belt. First, the assumption that Green Belts provide access to rural green space for urban populations is wrong. Urban populations value nearby parks and open spaces far more than they value distant Green Belts. The main beneficiaries of Green Belts are those few people rich enough to be able to afford to live in or near them. Their preservation in fact puts greater pressure on the urban green space that people do value.

Second, Green Belts are far from the rural Arcadia that people often assume. Over a third of Green Belt land is devoted to intensive agriculture and is actively harmful to the environment: though the efficient production of crops is a valuable economic activity, it is hard to see how soaking fields in herbicides and pesticides so as to cultivate a single crop is of environmental benefit. Rather, Green Belt policy leads to the creation of exurbs and dormitory towns, requiring more land to be tarmacked over for transport infrastructure and lengthening commutes, thus increasing pollution and greenhouse gas emissions.

Green Belt policy imposes longer journeys that cost commuters time and money

and increase pollution. It increases the (purchase or rental) price of accommodation and reduces it in size, both of which lead to welfare losses for all households. It leads to greater house price volatility which can cause macro-economic instability and also increases the cost to UK firms of doing business. This makes UK firms less competitive and drives up retail prices. It may even have contributed to the deindustrialisation of the UK and mass unemployment.

We recommend the abolition of the Green Belt. Land with important environmental, historic or amenity value should be protected by one of the many other designations that exist in UK law. Alternatively, new designations could be created to protect areas of significance to local people. Failing that, at the very least Green Belt designations should be removed from all intensive agricultural land.

This would enable the building of all the new homes required in the foreseeable future and even reverse some of the catastrophic under-supply of the past three decades, as well as making available new retail and employment space. In the long run this would make accommodation more affordable for all and help improve the competitiveness of British industry. In the short run it would lead to a boom in construction that would create hundreds of thousands of new jobs – especially suited to low- and semi-skilled labourers who are struggling in the current employment market.

The economics of land use planning and of Green Belts is clear. The opportunities that abolition offers are enormous. All that is required is long-term thinking and political courage. It is finding these that presents the real housing challenge.



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