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A System of National Tiered Housing Market Areas and Spatial Planning

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INTRODUCTION

An integrative approach to spatial planning, linking land use to other related strategies, has become the dominant ethos in Europe over recent decades. Despite this emerging consensus, spatial planning in England has gone through a period of great uncertainty since the formation of the Coalition government in 2010. The major changes stem from the fact that the new government has made a wholesale revocation of Regional Strategies in July 2010 and abolished all the existing housing targets (Quartermain, 2010). This undercurrent of change involves a shift from the previous top-down, target-driven approach towards an open source, locally orientated style of spatial planning (Allmendinger and Haughton, 2011).

Despite these fundamental changes, there are some threads running through from the previous approach to the new localism agenda, in particular the emphasis on partnership working between localities, so that ‘decision-making and delivery mechanisms should operate at the most appropriate geographical levels, based on specific market failures and maximising efficiency and effectiveness’ (HM Government, 2010: para 2.1). This emphasis on the flexible use of functional geographies (CLG and Coombes 2010) and the creation of the local enterprise partnerships very much echoes the spirit of spatial planning (Wong et al, 2006; Wong and Watkins, 2009). The former Labour government applied that ethos in its call for functional sub-regional areas to be the geography for new Strategic Housing Market Assessments (CLG, 2007a, 2007b), and it is that geography which is the starting point for this paper.

Through the enactment of the Planning and Compulsory Purchase Act 2004 (HM Government, 2004), the objectives of the statutory planning system has broadened from purely land-use based to a wider spatial approach that aiming to achieve sustainable development (ODPM, 2005). ; Although housing market areas (HMAs) have had a longer role in Scotland’s planning policy (Scottish Executive 2003), it was only following the inclusion of Regional Spatial Strategies (RSS) within the statutory development plan system for England in 2005 that the sub-regional Strategic Housing Market Assessments were introduced to the English planning process. Regional Planning Bodies took responsibility for preparing, monitoring and implementing the RSS which involved the identification of both a rolling five year supply of developable land and up to a further fifteen years of potential housing land within a HMA framework. In parallel the reports on the housing market and land use planning by Barker (2003, 2004) and the planning guidance that followed has ostensibly heralded a sea change to a more market responsive planning system (CLG, 2006; Scottish Government, 2008).

Within a market responsive planning mode, definitions of HMA boundaries can be critical to the allocation of new housing to particular areas. As illustrated by Openshaw and Taylor (1979), every geographical analysis, including the calculation of house price trends, is affected by the boundaries of the areas used. For example, if notable urban/rural contrasts exist in house price change as argued by the Commission for Rural Communities (2007), HMAs that include few urban areas will have a very different price profile to those including a mix of urban and rural areas. As a result, even if affordability levels are very similar in all the rural areas concerned, those grouped with urban areas could have a different likelihood of being allocated more new housing if there is a presumption in favour of urban areas on sustainability grounds. In fact, such a presumption could mean that rural areas in HMAs with a large urban area may not be seen as the appropriate location for much if any new housing that a HMA is seen to need (Cameron and Shucksmith, 2007). Some cities with excess supply are also near to rural areas where demand exceeds supply: if such a city and rural area are grouped into the same HMA then

it may appear to have a balance of supply and demand. On the other hand, if that rural area had been defined as a separate HMA then this would be seen to have a distinct housing shortage.

In practice, a market responsive planning policy change has proved difficult to implement. This position has arisen partly because of the challenges of defining local HMAs and the establishment and monitoring of market signals. This paper proffers a critique of existing planning advice and academic studies. It proposes a rethink on defining HMAs, arguing for a tiered approach developed consistently on a national basis. It begins by examining the detail of planning guidance and academic studies. The paper then develops a tiered approach culminating in explaining what this means for a comprehensive HMA geography for the whole of England. The advantages of this approach for spatial planning, and the prospects for its application within the Coalition government's local housing growth agenda, are then outlined, along with some concluding comments.

Planning Guidance for Housing Market Areas

The following brief review of planning approaches to defining HMAs considers both the Scottish and English guidance. HMAs have been applied by the planning system in Scotland since the 1980s and planning advice on defining a HMA has evolved. The definition has had periodic marginal changes and the most recent version published gives the following definition:

"A Housing Market Area (HMA) is a geographical area where the demand for housing is relatively self contained, ie where a large percentage of the people moving house or settling within the area have sought a dwelling only within that area" (Scottish Executive, 2003, para 20)

This planning advice suggests reference to housing search patterns and directs readers to the practicalities set out in a research manual (DTZ Peida, 2003).

This research manual sets out a method for defining HMAs in a series of stages.

1. Identify the major centres of the settlement hierarchy, ranked by size, within each structure or strategic plan area. The main centres are taken to be the anchors around which the HMA boundary will be drawn.
2. Determine household migration patterns from the principal anchor urban area to surrounding lower order settlements and if a set proportion of purchasers are from the anchor area (10% is suggested) then they are incorporated into the anchor centre's HMA.
3. If the percentage is less than the (10%) benchmark but still "still not negligible" (say 5%), then the research should examine the proportion of households moving from the 'satellite' area into the anchor HMA. If this proportion is substantial (8% is recommended), the community is incorporated in the anchor HMA.
4. If this second test is still inconclusive then the two preceding tests are repeated, looking only at new housing.
5. If the preceding steps are inconclusive, the final test for inclusion is to consider the general migration patterns of the satellite area and their interaction with an enlarged anchor area including other areas incorporated by the above steps.
6. Finally a spatial definition to the HMA is established by drawing a continuous border around the outermost settlements.

This procedure is repeated for the unallocated areas to test whether they can be grouped with lower ranked anchor HMAs. HMAs derived in this way are then subject to potential revision, taking account of projected policy initiatives that may be relevant and also feedback from consulted stakeholders.

Somewhat later, the responsible department of government in England (known then as ODPM but now CLG) published housing market assessment guidance developed by DTZ Peida (2004). This identifies broad approaches to defining sub-regional or local HMAs, and is less directive than the Scottish procedure set out above. HMAs are seen as areas within which people are prepared to search for housing and, related to this, they will contain both the origin and destination of the great majority who move home. Without testing its appropriateness, a 70% containment benchmark is said to be appropriate for HMAs. More specific guidance on HMA definition only emerged with the Advice Note (CLG, 2007b) which discussed three main approaches to HMA definition but avoided any clear recommendations. In outline, each of the approaches centred on the analysis of one of three different types of information:

House price levels and/or rates of change

Household migration and/or search patterns

The boundaries of Travel-to-Work Areas (TTWAs) and/or other functional areas

This planning advice in both England and Scotland is essentially pragmatic rather than scientific in its nature: in particular, a great deal was left to interpretation or debate (eg. with stakeholders) so there was no likelihood that a consistently defined set of HMAs will be produced in each part of either country. There is also little or no clear theoretical basis to the methods. Whilst the Scottish approach is more fully specified, it was not fully transferable to England because it does not share Scotland's widely spaced settlement pattern in which each sub-region has a distinct urban hierarchy. As a result, the method's assumption that each HMA has an urban core is not appropriate in England where many sub-regions have a complex polycentric structure.

The fundamental problem about the English planning advice is that the options are not specified in any precision, so almost any plausible approach adopted to defining HMAs can be said to fit to some degree with an option that the Advice Note had recognised. Following broadly this advice the subsequent derivation of local HMAs across England by regional planning authorities incorporated apparently sophisticated analysis of migration, commuting and house price patterns but the designated boundaries are ultimately virtually always constrained to local authority administrative areas and regional boundaries (see Nevin Leather et al, 2008; Baker et al, 2010a). Overall while both the English and Scottish approaches may have broadly the same theoretical starting point, the practical guidance that was derived varies substantially; when this is combined with the highly flexibility nature of that guidance, the outcome is that the HMAs defined are not at all comparable with each other and, in some cases, almost arbitrary.

Academic Case Studies of HMAs

Although the policy guidance outlined above has developed with little reference to theoretical understandings of HMAs, some academic studies have identified HMAs using methods that reflect theory in their definitional criteria, which are then consistently applied. The underlying theory here, whether explicit or implicit, is that the law of one price applies within each HMA, and this is achieved if the market is sufficiently closed in terms of buyers and sellers. This logic leads to definition methods which identify HMAs by finding areas with high levels of 'closure' (ie. self-containment) of migration flows. This section briefly reviews four studies in different regions of the UK and compares the results of these slightly different ways to define HMAs.

West of Scotland

The first theory-based academic study was by Jones (2002) and derived HMAs based on the migration patterns within the owner occupied sector. The spatial focus of the analysis was the area broadly defined as mainland west central Scotland. The migration data was derived from the

Land Registry or Register of Sasines and covered the ten year period 1984 to 1993. The approach was based on the analysis of migration flows, using these to group settlements into HMAs. These settlements range in size from the city of Glasgow to small villages, but their suitability for this analysis stemmed from their internal coherence.

The resulting HMAs were defined as contiguous areas comprising single settlements, or more often groups of settlements, with a high degree of housing market self-containment (ie. the flow of in-migration from outside the immediate HMA is of only minor significance). A generic problem here is that there is no theoretical basis for the choice of containment level. The initial benchmark of a HMA was taken to be 50% of house purchasers moving within the area, but this was later relaxed.

The grouping of settlements was undertaken using an iterative algorithm in which 'open' settlements are married to 'closed' settlements which already meet the containment criterion. Twenty-two HMAs identified with this algorithm satisfied the 50% closure criterion. Glasgow was by far the largest, with the next largest almost a fifth of its size. Some quite small HMAs were also identified, based on towns with relatively closed housing markets. Adding this criterion of a lack of interconnection with surrounding areas alters the method to one requiring:

- at least 50% internal migration, or
- in-migration from an adjacent HMA equivalent to less than 5% of the market.

Based on these criteria, a seaside area qualifies as an additional HMA (giving 23 HMAs in all).

This algorithm is based entirely on a self-containment criterion; there are still significant flows between the HMAs, especially from Glasgow to adjoining areas. Therefore the HMAs do not meet the original second criterion set out above. Further detailed research shows that this out-migration from Glasgow is to adjoining settlements (rather than the HMAs as a whole). This suggests a little fuzziness at the edges of HMAs, and a different algorithm could include these within Glasgow.

Jones (2002) next applies the two test criterion simultaneously, namely the 50% containment benchmark **and** in-migration from an adjacent HMA equivalent to less than 5% of the market to derive a system of (50*%) HMAs. This reduces the number to just 11 HMAs defined in this way. The Glasgow HMA now incorporates the surrounding areas within the Clydeside conurbation. Some small HMAs still remain as entities in their own right but HMAs with significant pair-wise migration inter-flows have been combined. This system of (50*%) also broadly satisfies his third test with respect to TTWAs; there are a number of minor discrepancies at the margins of the enlarged Glasgow HMA.

Jones (2002) reapplies and extends the algorithm to meet a criterion of 60%, but only a few areas meet such a criterion and yet he finds there would still be one strong pair-wise migration inter-flow. A 60*% definition would leave only 6 HMAs, less than the 9 TTWAs within the study area. A 40% benchmark would create at least 41 HMAs with many of the suburban satellites of Glasgow meeting this criterion but with significant flows between areas. Overall the 50*% benchmark Jones argues best achieves the original theoretically driven criteria while at the time best meeting a third test: a close (embedded) relationship with TTWAs.

These results provide useful insights into the open structure of spatial housing markets: 23 HMAs are identified based on the simple 50%+ criteria but there are still significant migration links between these HMAs defined in this way. This does not satisfy the second test. Extending the 50% containment criterion to include weak inter-connectedness reduces the number of HMAs to 11, and achieves the a priori theoretical understanding of HMAs. The region is

dominated by the city of Glasgow, and migration patterns appear to ensure an immediate house price spatial arbitration process which can encompass large areas. Yet there are also relatively small communities in rural areas and some free standing towns which have relatively closed HMAs.

North West England

The delineation of a system of HMAs for the North West of England has been undertaken by Brown and Hincks (2008). The region has approximately 6.9 million people and two major cities, Liverpool and Manchester. The research is based primarily on migration data between wards from the 2001 Census but the first stage is to consult estate agents to identify *prima facie* HMAs and thereby to provide 43 core points for the analysis. A 70% containment criterion is used to define a HMA and is applied to both the percentages of in-migrants and out-migrants into an area. The authors use a more sophisticated computer algorithm than Jones' (2002) - a hierarchical step-wise aggregation procedure that groups wards on the basis of migration between and within areas. The first round of this procedure finds that not all 43 potential HMAs by estate agents achieved the target 70% containment and so the analysis is repeated and ultimately 25 are identified.

The reduction from 43 to 25 HMAs through strict application of the 70% containment criterion removes a number of small rural HMAs where the market may be distorted by second home purchases. After further consultation with estate agents some small towns are included in larger HMAs. The geography of these 25 HMAs show they are not entirely consistent with local authority boundaries. Comparison of the 25 HMAs with the 23 TTWAs in the region reveals similarities in more urban areas. The differences between HMA and TTWA boundaries in rural areas lead the authors to suggest varying the self containment criterion by type of area. This fuzzy overlapping relationship for these geographies is explored further in Hincks and Wong (2010).

North East England

A study by Coombes et al (2006) seeks to provide a set of policy relevant definitions of HMAs in the North East that can be used for housing policy. In particular, it examines how different approaches to this task meet the criteria given in the guidance manual (DTZ Peida, 2004). Unlike the North West study, the analysis is based entirely on the 2001 Census migration data. The study teased out key characteristics of the migration data (see more detail in Champion and Coombes 2007), which in part explain the challenge of setting an appropriate threshold for migration closure. In response, Coombes et al (2006) try including non-movers in the analyses: the equivalent of a 70% containment criterion for movers was found to be 97% if non-movers were included.

The method was that used to define TTWAs and did not involve identifying urban centres around which to build the HMAs. First areas are ranked by the set criteria, if the worst does not meet the criteria then it is reallocated to maximize the integration of flows, and this is repeated until the criteria are met by all HMAs. The results again find that HMA borders split local authority areas. The southern HMAs straddle the regional border with Yorkshire and the Humber while the Scottish border is straddled too. The study then changes the containment criterion to show how rather different maps are produced.

A key benefit of the dataset was that it allowed separate analyses of different tenure groups, thereby revealing that areas with high levels of social housing have low mobility compared with other areas. The results are robust for the owner-occupied groups but the analyses of social housing renters is affected by the patchy distribution of this type of housing. When using the

same closure threshold as that producing numerous sub-regional HMAs for other tenure groups, a single HMA was found to cover the whole country for private renters because of the long distance moves by students. The study is a clear illustration of how the selection of a closure threshold is driven by the choice between different sets of boundaries, a choice that is ultimately made on subjective criteria.

Southern England

Coombes (2009) shows the results of some of the analyses that were previously applied to the North East for areas of the East Midlands, East, London and South East regions of England. The results place London in a very large HMA that includes much of the South East region but, at the same time, there are also some small HMAs which meet the same criteria. It is argued that this approach has identified genuine differences between areas in people's areas of house search and mobility: it remains an issue whether directly reflecting these extreme contrasts in the HMA definitions means that these definitions would be suitable for planning policy purposes.

Overview of Evidence on HMAs

There are a range of studies with different criteria and, for each broad approach, different analyses and criteria can produce very different HMAs. As was to be expected, more 'purely' defined HMAs are not consistent with local authority boundaries, nor with regional boundaries. The criteria used for defining TTWAs influenced the suggestion of a 70% self-containment criterion for migration patterns, but this is not transferable to defining HMAs in that the boundaries produced are not consistently suitable for policy purposes. These studies raise questions about the use of the same criteria in rural and urban areas, and more generally the wide range of HMA sizes produced by any of the criteria that were applied consistently. The potential significant relationship between TTWAs and HMAs has been highlighted, but it has remained unresolved as to how labour and housing markets are linked. This issue is now considered within a hierarchical approach to defining HMAs.

A Tiered Geography

Academic and planning studies to date have primarily seen HMA geographies as a single layer. This section argues that sub-regional and local housing markets can be seen to form a hierarchy. It begins by reviewing the theory of urban housing markets which centres on the role of journey to work as a key influence. It then focuses on the role of spatial arbitrage in moulding the nature of housing markets via household migration.

The essentials of the theory of urban housing markets were developed by Alonso (1964), Muth (1969) and Evans (1973). The concept of the HMA is framed within urban areas that are characterised by the following key assumptions:

- each town or city occupies a featureless plain, so any topographical features that might distort key relationships are ignored,
- employment is concentrated in the central business district, and households make a fixed number of work trips a week.

The housing market in this model is assumed to have perfect information and that households then make bids for particular locations and through this process a price surface emerges. In this housing market the law of one price holds but prices vary with distance or accessibility from the city centre. In deciding the price to bid households take into account the transport cost of any location to the CBD.

The model presumes a dominant city or town centre that represents the key point of accessibility and the major locus of urban employment. In contemporary England, the pattern of settlements and commuting does not conform to these assumptions: the urban system is a complex hierarchy and not a series of independent towns with separate commuting patterns. In addition, commuting trips are no longer necessarily only from suburbs to city centre because subcentres exist within a city region (McMillen and Smith, 2003). Outside the larger city regions there are sub-regions with several towns where the key accessibility relationship is linked not to the centre of the town with the largest population but to the point of greatest ‘regional’ accessibility within that urban network.

Notwithstanding these differences between the theory and the actual urban system and its commuting patterns, the journey to work remains crucial in shaping local spatial housing markets (Jones et al, 2010). Commuting from the local employment centre is in a sense the driver of the local housing market and this employment is the source of most income that creates the demand. This suggests that local HMAs are framed within travel to work patterns. In other words, boundaries of HMAs are constrained by the distance travelled by commuters. Within this perspective then, spatial house price arbitrage (Jones and Watkins 2009) occurs as households move within these commuting-based areas which are here called *Framework HMAs*.

There are key qualifications to these conclusions. First, the access-space model represents a long term equilibrium view of the housing market so HMAs defined by commuting patterns are best viewed as the overall framework within which spatial housing market processes operate. Second, the simplifying assumptions of the access-space model neglect important dimensions of the housing market and its short term dynamics, namely that households have preferences for different house types and neighbourhoods and areas, and that the housing stock is differentiated in terms of housing quality and types and is (relatively) fixed at any particular location. Finally, the assumption of a unitary housing market within an urban area in which the law of one price holds has also been the subject of considerable academic debate and challenge (Jones and Watkins 2009). There is a range of factors which result in restricted household mobility, and the slow response of new house building to price rises can mean that short term price differences between different parts of an urban market may persist in the long term (Jones et al, 2003, 2004). In other words, the extent of spatial arbitrage within *Framework HMAs* defined by commuting can be constrained by schisms within that wider area.

The heterogeneity of housing, range of neighbourhoods/locations and the short distances often moved by households suggest the potential for subsystems or layers within a *Framework HMA*. In other words differences are not arbitrated away across the *Framework HMA* because there are numerous factors that limit the responsiveness of new supply and/or household mobility at least in the short term. This can be illustrated by household movement and the different substitutes and locations households consider when moving home through the family life cycle. City centre living, usually in a flat, has become popular for childless households in their twenties and thirties. Prices of these flats will reflect the priorities of these households. Later in life households with children often will prefer a suburban home with the use of a garden, or place greater emphasis on neighbourhood factors such as school catchment areas (assuming the work search areas remain unchanged). The price a household is prepared to pay for a specific house will reflect a combination of its structural characteristics and the neighbourhood in which it is located. Although this price will in the long-term be determined by reference to the wider fundamental spatial house price structure of the whole *Framework HMA*, the spatial arbitrage processes are constrained by actual migration patterns. This leads to the possibility of defining a separable set of smaller areas that are here termed *Local HMAs*.

This perspective can be even further decentralised to neighbourhood or house type *submarkets*. The concept of the submarket implies that the urban housing market may be segmented on the demand and supply side of the market. From a demand perspective households may form distinct consumer groups with associated housing preferences and tastes that are in turn linked to family life stage, size and composition, and socio-economic status. These consumer groups may also have similar constraints in their search and information costs. Similarly with the supply side of the market, the housing stock is segmented into product groups (MacLennan *et al*, 1987) which represent relatively homogenous dwellings and hence close substitutes for the demanders of housing. The existence of submarkets implies segmented demand is matched to the differentiated housing stock and results in differential prices to be paid for given attributes in different market segments. In this way distinct premiums for particular neighbourhood and/or house types are derived.

The constraints on market adjustment or spatial arbitrage between *Local HMAs* (and even *submarkets* where relevant) means that standardised house prices in different parts of the same *Framework HMA* can be very different. Spatial arbitrage occurs, but it may be indirect and with time lags. Excess demand for particular dwellings (and their close substitutes) drive prices in that *Local HMA* upward but it may not affect adjacent *Local HMAs*. The result is that different parts of a *Framework HMA* may have very different house price structures, and hence different house price inflation trends and levels of affordability. This also means that building new houses in one part of a *Framework HMA* may not necessarily address an affordability problem due to supply shortages in one of its constituent *Local HMAs* (unless it also leads to new migration patterns). Thus addressing affordability requires a sensitive approach to the location of any new housing, taking into account transport networks for example, and this implies a focus on *Local HMAs* embedded within their *Framework HMA*.

This discussion has therefore established three potential tiers for the structure of HMAs:

1. *Framework HMA* defined by long distance commuting flows
2. *Local HMAs* defined by migration patterns
3. *Submarkets* defined by neighbourhood and/or house type price premiums.

It is important to recognise that these tiers are based on theoretical considerations, and in some parts of the country several tiers may collapse into a single HMA boundary in practice. For the two top tiers, whether they align with each other will depend on the relationship between migration and commuting patterns in each sub-region. It is most likely that *Framework HMAs* will be considerably larger than *Local HMAs* where long-distance commuting is more prevalent, which tends to be around major conurbations. By contrast, *Local HMAs* could actually be larger than *Framework HMAs* in some rural areas where many of the migrants are retired and so not part of the local labour market (where the commuting patterns for most workers are localised).

The three tier structure does not offer a theoretical basis for selecting the levels of closure that should be required when defining HMAs. These are empirical questions which are not addressed in this paper: the most relevant results are in Jones et al (2010) and Coombes and Wymer (2010). For the present paper, Map 1 shows the results of the ‘central case’ developed in that research. This analysis defines *Framework HMAs* based on a higher level of commuting closure than applied to TTWAs, while a lower level of closure is deemed appropriate for the migration analyses to define *Local HMAs*. On this basis, the boundaries of *Framework HMAs* are either larger than, or the same as, those of *Local HMAs*. The grouping algorithm applied follows the TTWA methodology (Coombes and Bond 2008) that has become an internationally-recognised standard for labour market area definition by identifying the clustering of commuting flows. Here the algorithm first groups commuting flows (for the upper tier) and then migration flows

(for the lower tier). Map 1 shows *Framework HMAs* defined by 77.5% commuting closure and *Local HMAs* with 50% migration self-containment. Such a national geography offers a consistent approach to a complex problem. A key part of that complexity is resolved by the flexible nature of the tiered structure, with the subdivision of *Framework HMAs* into several *Local HMAs* proving unnecessary in much of the country: away from the more urbanised regions, the two tiers coincide.

This geography is a set of ‘nested’ tiers, in that the lower tier of *Local HMAs* is bounded by the limits of the upper tier *Framework HMAs*. Such a nesting approach can distort the pattern which would be observed if the *Local HMA* geography is defined in an unconstrained way. There are arguments for both a constrained and an unconstrained geography. In practice, this constraining of the lower tier HMAs reduces their number from 327 to 280 as a result of ensuring that they respect the boundaries of *Framework HMAs*. This may be seen as sub-optimal in scientific terms, but the nested geography does provide clear lines of responsibility for planning administration and is therefore worth the introduction of some minor distortions into a geography that is being defined explicitly to support policy application.

A Tiered HMA Geography and Spatial Planning

Spatial planning goes beyond traditional land use planning to integrate policies for the development and use of land with other policies and programmes which influence the nature of places and how they can function (ODPM, 2005: para 30). This definition captures the complexity of planning policies which requires sectoral and spatial integration. Plan-making of local areas requires consideration of the wider spatial context and outcomes (positive, negative, displacement effects) for the surrounding areas. Since places are connected in different ways to deliver different activities, it is important to recognise that there are different spatial layers of administrative and functional geographies and that no single set of boundaries can fully satisfy the monitoring needs of complex spatial policies (Baker et al, 2010b). The strength of a tiered HMA geography is that it has a set of consistently derived *Local HMAs*, providing a sufficiently fine-grained basis for more locally based analysis, linked to sub-regional contextual analyses with *Framework HMAs*. This enables individual local planning authorities to develop more robust and dynamic analysis to inform policy formulation related to housing affordability, housing provision and the core strategy of Local Development Framework preparation and monitoring.

The tiered approach also allows different planning timescales to be recognised. *Framework HMAs* represent the long-term framework for spatial housing markets, linked to the timescale for strategic planning. The approach recognises that though *Local HMAs* are in the short term fixed, in the long term they can be shaped by the planning system via changes to transport infrastructure provision and new house building. While the *Framework HMAs* provide a useful macro perspective for central government to plan for housing, they will be less relevant for day to day planning decisions at the local authority level because housing behaviour as reflected from migration analysis is very localised and developers and house builders will respond by providing different types of housing according to very precise local and sub-market demands. Having the additional lower tier set of HMAs potentially offers a more flexible perspective relevant to the shorter-term and day to day planning activity of planning approval and monitoring work.

In considering the soundness of emerging Local Development Framework documents, inspectors might also expect local authorities to explain how they have utilized information on *Local HMAs* as part of their evidence base for emerging spatial planning policies. Knowledge of *Local HMAs* would also be valuable in considering and making decisions on local, but

strategically important, planning applications for residential use where, for example, multiple applications to the same local authority area might, in fact, relate to different HMAs and thus have different potential implications as regards to local affordability, house prices and local commuting patterns.

The revocation of the Regional Strategies, as well as the introduction of the New Homes Bonus scheme and the Right-to-Build powers (HM Government, 2010) pose challenges but also provide opportunities for local authorities to develop a more contextualised approach to address local issues. The tiered HMAs provide the flexible reference framework needed to develop housing market analysis to help local planning authorities to establish ‘the right level of local housing provision in their area, and identifying a long term supply of housing land without the burden of regional housing targets’ (Quartermain, 2010). The tiered framework could also provide a catalyst for local authorities to develop partnership approaches to address wider housing market issues to gain ‘a more efficient use of resources and secure a better outcome than operating in isolation’ as desired by the Coalition government (HM Treasury, 2010: para 2.14).

Concluding Comments

HMAs can be seen as a cornerstone of spatial planning, and its concern within functional areas. They were the centre piece of RSS for England introduced in 2005 and although RSSs have been abolished in England HMAs will continue to provide a basis for local planning (as in Scotland). The use of HMAs also fits well with an era of market responsive planning. However the current planning guidance has deficiencies and although both the English and Scottish approaches may have the same theoretical basis, the outcomes are different. In each country the HMAs that have been produced lack consistency and are too often constrained to administrative boundaries for policy convenience. This emasculation of the fundamental functional building block of housing market planning substantially dilutes the policy aspirations.

This situation has arisen partly because there is no easy way to construct a geography of HMAs, given the theoretical and practical challenges. The theory at one level is straightforward – the law of one price applies to a HMA – but this can only be achieved if the market is sufficiently closed in terms of buyers and sellers, which means closed in terms of migration flows. At the same time the journey to work is a key determinant of HMAs. Turning to the practical issues, the context here for the application of theoretical norms is a highly complex country with diverse urban and rural settlements, shifting patterns of employment and a very inflexible housing market.

This paper has presented a theoretical perspective on the housing markets as a layered system characterised as:

Tier 1: Framework HMAs defined by long distance commuting flows and the long term spatial framework with which housing markets operate

Tier 2: Local HMAs defined by migration patterns that determine the limits of short term spatial house price arbitrage

Tier 3: Submarkets defined in terms of neighbourhood or house type price premiums.

A nationally defined tiered geography for the top two tiers addresses the inconsistencies of the current locally devolved system. While theory does not provide a definitive view on the precise migration and commuting containment criteria, the geography in Map 1 has *Framework HMAs* defined by 77.5% commuting closure and *Local HMAs* with 50% migration containment. In this geography the hierarchical structure is flexible, in that the lower tier is nested into the upper tier because this is deemed the most appropriate for policy applications.

The tiered approach to HMAs is not only theoretically sound, but also offers important policy advantages over a single tier. A tiered approach to policy sees the *Framework HMA* as providing the long term horizon for strategic planning encompassing projected household changes, transport connectivities, housing land availability, housing market change, urban capacity study and addressing major initiatives like growth areas. The *Local HMA* can be seen as the short term perspective in which planning also has to operate. Building new houses within a *Framework HMA* may not necessarily address supply shortage in a particular *Local HMA* directly in the short term but it is possible that new building in the long term can lead to a redrawing of migration patterns. To achieve this will require a sensitive approach to the location of such new housing taking into account transport networks for example and demands a focus on *Local HMAs* embedded within their *Framework HMA*.

The derivation of a consistently defined national tiered geography of HMAs as set out here could guide local authorities and key stakeholders to think more robustly in spatial terms beyond their own administrative boundaries, and to better recognise the reality and circumstance of local and sub-regional housing markets. It also offers a flexible national reference framework for resource allocation (eg. based on relative affordability in each HMA), just as TTWAs have long afforded such a geography in the labour market. From a spatial planning perspective, adopting a tiered set of nationally defined HMAs would not only provide strategic *Framework HMAs* for a national perspective on inter-regional and sub-regional analysis, monitoring and spatial strategy development, but it would also provide a set of *Local HMAs* offering greater flexibility and robustness for a variety of analyses, monitoring, policy formulation and planning decisions at the sub-regional and local authority level.

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Map 1 Lower tier based on migration (50%) *within* commuting-based upper tier (77.5%)