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Planning as ‘market maker’: How planning is used to stimulate development in Germany, France and The Netherlands

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Executive summary

This report explores what planning in the UK can learn from overseas experience where the activity is often constructed as an important market participant that animates land and property markets by providing the certainty and preconditions for investment that markets crave. In this report we explore three European case studies - Nijmegen, Hamburg and Lille - cities within which planning is charged with engaging with the market and providing responses to market failures with which a more passive, regulatory model of planning would be ill-equipped to deal. In these cities where planning has been empowered and is provided with legislative and financial support we see startling results in terms of development quality, laying the foundations for sustainable, positive economic outcomes.

Nijmegen, our principal Dutch case study, illustrates how planning might be used to lead and coordinate development through the use of specific mechanisms that guide and stimulate the market. 'Land-readjustment', a term used in the Netherlands to refer to a specific form of planning whereby land rights are temporarily pooled to deliver infrastructure or collective area-benefits, delivers individual benefits to private land-owners that would significantly outweigh any garnered from acting in isolation. In this model, risk is reduced for the public sector, diminishing the need to engage in resource intensive compulsory-purchase procedures. Moreover, the very processes involved in bringing private land-owners into cooperation often creates healthy coalitions which have a stake in future development.

In Hamburg, a strong guiding role for a planning institution points to ways in which large scale developments can be used to channel private sector innovation and delivery capabilities to achieve higher overall development quality. As a result of the Länder (regional State) and the City developing a strong planning institution that was able to undertake upfront land assembly and infrastructure provision, planning was able to shape the form and structure of development in the area, encouraging a density and quality commensurate with the economic aspirations of the region.

Finally, the Lille case study shows how planning institutions can be empowered to employ strategic foresight and cooperative incentives to overcome institutional obstacles to coordinated development across jurisdictions. Coalition building, whereby neighbouring authorities pool resources in order to share the products of investment that would be greater than they could achieve in isolation, has been crucial for some of the region's major successes. Strong planning institutions, an appropriate planning toolkit, devolved funding and local leadership that encourages strategic spatial planning has been central to the delivery and maintenance of this model.

The report argues that the outcomes of such approaches to animating urban development can produce better quality, more sustainable built environments.

Much recent research that explores the relationship between planning and the wider economy has used a neoclassical framework to investigate the costs of the activity. Using this approach an analysis of planning has emerged that points to the constraints that this form of statutory intervention places on development (widely construed) and, correspondingly, economic growth. The currency of this academic argument has in turn had a significant bearing on political debate. In this respect planning is now routinely perceived as an overbearing, regulatory state function the principal effect of which

is to suppress our economic performance and contribute to the major social dilemma of the day – our collective inability to provide sufficient housing at accessible prices.

If the conclusion that follows is that we need less planning we must first explore the degree to which this inductive argument stands up to scrutiny; is the problem planning itself or simply the way we have chosen to perform the activity across the British Isles? The vast majority of nations around the world operate some form of planning system. Yet the same outcomes do not prevail.

As this report illustrates, only strong planning institutions, where planning professionals are well resourced, empowered, and both culturally and societally supported can routinely deliver these outcomes for places. By contrast in the UK planning is routinely held accountable for our poor or limited development outcomes. Taking a wider international perspective points to the possibility that the kind of outcomes that will enhance economic performance through the creation of great places may require more planning not less.

Key findings

1. Public and private sector actions can be more effectively combined where there is an understanding among planners of where risk lies in the development process. In some contexts the distribution of risk is engineered to favour development where it might otherwise be unlikely to occur. This allows for the selective use of public sector intervention, in addition to incentives to guide private sector investments.
2. Planning can stimulate action in situations where cooperative working between multiple stakeholders is necessary to catalyse development. The ‘first mover problem’, when planning intervenes to reduce risk or ensure fair share of rewards, is a prime example of the role planning can play to encourage development into being and facilitate the subsequent entry of private sector investments. Other means of solving such ‘collective action problems’ might be through the pooling of property rights of land and property owners throughout the course of the development process. Sharing of risk among a number of actors may facilitate development where risk aversion is the dominant behavioural characteristic.
3. The assembly of coalitions is often an essential precondition to effectively marshal the development process. The durability of such coalitions is dependent upon the belief of coalition members that they have more to gain as part of the coalition than by acting alone, a notion known as ‘superadditivity’. This might occur through the translation of shared interests into a formal agreement and a strategic vision that balances ambition with systematic inclusion. Moreover, this concept can be extended to include forms of intra-metropolitan cooperation where development may otherwise be disrupted by the presence of formal administrative boundaries.
4. A behavioural shift towards a model that sees planning act as a ‘market maker’ for the private development industry does not necessarily imply a shift in the ethical goals of planning. What we see from the case studies is that planning interventions that are supportive of economic growth go hand in hand with those that make great places. Good quality public spaces, efficient transport networks and attractive urban design should not be understood as coming at the expense of prosperity but rather as congruent with the economic growth that a development process animated by planning can deliver.

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PART ONE

1. Introduction

This report seeks to explore the role planning may play in catalysing development. Economic analyses of planning have typically used a neoclassical framework to evaluate the costs of planning as a regulatory activity, usually in terms of its tendency to distort housing markets. Whilst these supply side effects of planning are real and an important area for academic research there has been little work that provides a balance to this analytical approach through an engagement with the question of what positive effects planning might have on the functioning of land and property markets. This study is prompted by this gap in our understanding.

Through consideration of other overseas contexts we investigate the way planning might function as an active market participant charged with animating the development process by enhancing the certainty and preconditions for investment that markets crave.

Methodology

A cross-national comparative case study methodology is deployed in which three European planning contexts – our nearest Continental neighbours - are explored in respect of the approaches taken by planning in each instance to engage with the market. A documentary analysis of academic literature and policy documents is combined with semi-structured interviews with planning professionals in the public and private sector, in addition to policy experts. An understanding of the nature of planning activity in each case is assembled from data gathered in the investigation and is conceptualised through the lens of behavioural economics.

Research questions

The research is designed to explore two related questions:

- In what ways has planning practice in some European contexts been reformed with the aim of encouraging a wider and economically active role for planning professionals?
- Has the reform agenda introduced in such contexts resulted in any qualitative change in planning outcomes?

We survey experience from a variety of European cases where planning systems and the corresponding practice of planning professionals diverges significantly from that of the systems in place across the constituent nations of the UK. The example of Hamburg demonstrates how a powerful, fiscally autonomous, city regional government is able to mobilise the development industry in order to realise potential value while generating collective goods in a large-scale urban redevelopment project. In Lille the fostering of political consensus and the use of investment and management instruments for public-private development partnerships has shown how planning encourages private investment by providing the necessary preconditions to stimulate the development process into being in an economically polarised city region. In Nijmegen the situation of potential development deadlock that occurs in sites of multiple ownership is unlocked by means of a planning agency acting as the ‘first mover’ in the development process, providing the leadership role required to engineer consensus among market actors.

Through exploring the experience of some of our nearest neighbours we hope to progress the debate on the economic effects of planning. Engaging with the literature on behavioural economics

and game theory allows us to look afresh at how other nations have understood the economic role of planning practice.

Wider context

The findings of this report chime with much of the work the RTPPI has undertaken as part of its 'Value of Planning' workstream. The outputs of this workstream have outlined both how planning can be used to catalyse more, and better quality, development but also why better development leads to improved economic outcomes.

As the UK Government looks to identify how to boost national productivity and ensure that economic growth is sustainable, we need to better understand the importance of well planned urban environments on economic outcomes.

For example, we know that many of the outcomes produced by good planning are essential for a strongly performing economy: good transport connectivity provides greater economic opportunity and supply in the labour market; places which encourage healthy lifestyles can produce more productive labour forces; inclusive, safe and socially-cohesive places can reduce the need for government expenditure on services such as health and social care, crime prevention and security.

2. The economic effects of planning

The effects of the UK planning system on economic growth, long an academic area of debate, has grown to become an issue of increased political importance in recent years. Research employing a neoclassical framework has tended to focus on the effects of planning's regulatory function, presenting an account of the activity that dwells on its 'costs' (broadly construed) (see, for instance, Evans, 1988, 1991; Cheshire and Sheppard, 2005; Nathan and Overman, 2011). However, this approach is much less well suited to the measurement of the benefits of planning, which would entail the measurement of concepts that are not easily quantified such as preservation of environmental assets and community stability. As a consequence of this analytical mismatch work in this vein contends that regulatory planning is insufficiently flexible to respond to price signals and is thus unable to adapt to changing socio-economic conditions (Hilber and Vermeulen, 2014), leading to substantial nominal inflation, as well as increased volatility, in house prices (Cheshire and Sheppard, 2005). While some authors presenting these analyses have argued that their emphasis on measuring the costs of planning must be viewed against a wider welfare debate regarding the potential positive effects of regulatory planning (Overman, 2014) neoclassical analyses of planning have also become associated with normative aspects of neoliberal politics (Haughton et al, 2014).

From this perspective policies aimed at deregulation, and associated with the neoliberal agenda, have been implemented with respect to the planning system since the early 1980s in the form of the removal of higher, strategic, tiers of spatial governance and the imposition of central government policy in place of local discretion. While a status quo that downplays the economic costs of restricting development may exist in certain circles (e.g. CPRE, 2011; National Trust, 2011) there is, as pointed out by Adams and Watkins (2014), a dearth of research into possible alternatives to the neoclassical view that might present a different account of planning - potentially as a facilitator, rather than an inhibitor, of development.

Counter-arguments to the neoclassical argument have tended to focus on the importance of understanding planning as a more diverse range of activities than the solely regulatory aspect that neoclassical analyses are inclined to address (Adams and Watkins, 2014; Watkins, Adams et al, 2015)

while also stressing the fact that the benefits of planning come in the form of unpriced public goods that for the most part elude analysis undertaken in the neoclassical tradition (Houghton et al, 2014).

Adams and Tiesdell's (2010; 2013) classification of planning instruments into four types demonstrates the variety of ways in which planning has an impact upon economic growth. *Market shaping* is said to represent actions such as strategy making and visioning that set the decision-making environment for market transactions; *market regulation*, through development control decisions and design codes, constrains the decision-making environment of market actors by regulating market transactions; *market stimulus*, in the form of land assembly and public-private development partnerships expands the decision-making environment of market actors by facilitating market transactions; *capacity building* increases the effectiveness of market processes by developing skills, enhancing knowledge, building networks and changing entrenched cultures.

Writing only a few years later in research that builds on this earlier work, Adams and Watkins (2014) argue that in seeking to measure the effects of planning on economic growth it is necessary to survey the full range of impacts that governmental activities, whether undertaken explicitly under the banner of planning or through other related organs of the state, might have. The contrast between the conception of planning as synonymous with the regulation of development and the range of full range of congruent state activities outlined above points to the need to understand better the relationship between planning, widely construed, and growth in order to locate more effective means of measuring this relationship.

This broad understanding of planning serves to illustrate the potential role that planners, in both various branches of the public and the private sectors, can play in fostering economic growth by engaging in the development process. In keeping with this observation a number of recent studies have begun to explore alternative modes of planning practice from elsewhere in Europe in which planning is charged with the initiation and facilitation of development (Hall, 2014; Falk, 2014; Oxley et al, 2009). Research in this vein suggests that planning may have a role to play in mitigating externalities potentially harmful to future growth and can be an important conduit for the provision of public goods, such as infrastructure, that may be a necessary condition for future investment and growth. Moreover the position planning may play in overcoming obstacles to development, particularly situations where a prisoners' dilemma-type problem exists – in which individual actions are incentivized over cooperation – points to the value of game theory and behavioural economics to explore planning issues.

Taking this cue, critics of the use of the neoclassical framework as applied to planning have argued that overly simplistic and unrealistic assumptions in terms of substitutability, the status of agents as atomistic optimisers, the lack of transaction costs and information constraints, as well as an absence of spatial complexity, make the case for the use of techniques from branches of economics better attuned to this real-world complexity than uni-equilibria solutions aimed at defining 'optimality' (Ferrari et al, 2011). Behavioural economics is one such quarter from which insights might be drawn by researchers searching for a potentially more accurate account of the complexities that characterise the processes of planning. For example, Ferrari et al (ibid) contrast the assumptions of neoclassical economics with those of a proposed methodology based on behavioural economics, in which individuals operate within a bounded, rather than a universal, rationality in which 'rules of thumb', rather than rational calculation, are used under conditions of uncertainty, and in which socially embedded individuals function under social norms and use habits and socially accepted rules in their decision-making processes.

Furthermore, at one remove, institutional economics offers another alternative to mainstream neoclassical economics that has provided great explanatory value for academics seeking to

understand how institutional arrangements structure environments in which market transactions occur (Healey, 2003; Lord, 2012). Institutional economics relates differences in the behaviour of economic agents to differences in institutions within which agents operate and in which transactions – understood to encompass a range of social exchange, rather than being limited to financial transactions – take place (Hodgson, 1998; Saxenian, 1994). Institutional differences may be present among firms or, of greater relevance for planning, territories in the form of legal and policy frameworks as well as informal rules and norms (Boschma and Frenken, 2006). As a result comparative analysis of different institutional environments can be of great value in explaining differences in planning outcomes.

Adams and Watkins (2014), in setting out a research agenda to explore the economic effects of planning, identify three levels of analysis at which this might take place: the macroeconomic scale, at which the aggregate economic impacts of planning can be partly assessed; the meso-level of neighbourhood, urban and regional scales, where differential impacts between different scales and territories can be explored to elucidate an understanding of spatial dynamics; and the micro scale, where the effects of planning on the decision-making of actors within the development process can be investigated.

Much of the focus of economic analyses to date has tended to be on the macro scale, at which aggregate data for land release and house building are incorporated into an econometric analytical framework. By contrast the meso and micro scales have commanded considerably less attention and may be better served by a methodological pluralism to accommodate quantitative analytical methods together with behavioural considerations such as the negotiated aspects of interactions between planners and developers (e.g. Martin et al, 2014). Transaction costs approaches are similarly targeted at these scales, adopting a similarly pluralist attitude to method and data collection.

In addition to the economic approaches outlined above, some (Ball et al, 1998; Lord 2009; 2012; Samsura et al, 2010; Samsura et al, 2012) have proposed the field of information economics, along with its methodological toolkit, game theory, as an appropriate choice for the challenge of understanding the negotiations that form the mainstay of planning practice. While the analysis of transaction costs in planning attempts to understand the development process through an analysis of formal institutions and rule frameworks, it is unsuited to the investigation of more informal sub-institutional interactions based more on social norms, habits, reciprocity and, potentially, clandestine dealings. At the basis of this approach is a concern with the behaviour and decision-making of individuals and groups, subject to the constraining influence of different endowments of information.

In the planning field the subject of state-market relations has been characterised by Adams and Tiesdell (2010) as an aspect of planning practice in need of reappraisal. From the perspective of information economics, a better understanding of the strategies adopted by market participants (including planners and developers) could allow for a reframing of the legal and policy environment in which negotiations take place that might lead to a more efficient and effective planning system. Negotiations between planners and developers have long formed a part of the planning process in the context of the UK's discretionary approach to land-use regulation and planning obligations, while the introduction of collaborative planning practices in the UK has brought with it an increased role for partnerships of non-state actors. The nascent infusion of game theory, behavioural economics and institutional economics into academic accounts of planning points to an analytically richer way of understanding planning outcomes as the result of multi-stakeholder negotiation. It follows that a greater understanding of the microeconomics of the development process could provide important clues to how outcomes are associated with the formal and informal behavioural norms established

in a given development context. By extension, comparative analysis of different contexts which employ alternative behavioural approaches to planning may provide lessons for how we might re-examine planning at home.

3. Rethinking economic analyses of planning

In the wake of the literature presented above the lasting impression is that the peculiarities of transactions in land and real estate mean that the explanatory value of a mainstream neoclassical analysis is limited. The asset in question, land, is highly differentiated and overlaid with deeply charged emotional connections – what we might think of in other contexts as ‘sentimental value’. Furthermore, given that transactions in development rights imply material changes to our environment that can last centuries it is clear that the decision-making process is based upon the aggregate of many factors that lie outside the analytical purview of neoclassical economics.

In other words, markets for land and real estate are characterised by some peculiarities not least the decades/centuries-long shadow cast by the irrevocable decision to develop and the emotional attachment between people and landscape. Moreover, demand and supply sides of the market for development rights in land will almost always have to reconcile the third party effects of externalities: pollution, congestion, environmental damage, which development will often entail. Not even the most radical proponents of free markets would support removing these basic safeguards provided by planning systems. In this light, more nuanced analysis is required to assess the economic impact of the agency that mediates this complex market: the planning system.

Despite this fact, the literature surveyed in section 2 illustrates the dominance of the neoliberal framework in cataloguing the ‘costs’ of planning, without a corresponding attempt to measure its potential benefits. By way of corrective we turn to the wider economic literature – behavioural economics and game theory - to explore what progress might be possible to better understand the true relationship between planning and economy. Three concepts drawn from this wider literature that are held to be of particular relevance to the planning and development process are briefly outlined below, together with suggestions as to how they might be interpreted in a planning context.

First mover problems

Market equilibria are established, and re-established, over time. These market processes and the games they mirror require multiple sequential steps involving market actor interactions in order to reach a resolution. Whereas a neoclassical perspective turns on a uni-equilibria resolution to a market clearing equilibrium, in game theory there are often (usually) multiple possible equilibria. That is to say, factors of output in the built environment, such as quantity, quality and price are not determined in an economically efficient sense by the operation of an unfettered market, but are influenced and malleable according to the actions of firms, individuals and regulators. This being the case there might be a distinct advantage to be had in taking the lead in an economic encounter – the commonly understood ‘first mover advantage’, in the sense that the first mover has the opportunity to encourage a resolution that privileges a more advantageous equilibria for them.

The ‘first mover advantage’ is well documented in the game theory literature in a host of abstracted situations, and more widely in the applied literature in terms of the competitive advantage that accords to the businesses that are the first to occupy a new market segment or to control a new resource.

Less familiar are 'first mover problems'. Where there is an obstacle to the achievement of an equilibrium due the presence of a range of competing interests, the ability of transactions to occur is inhibited. In some situations it may be that these competing interests could be aligned towards a common interest that would generate benefits for each party. For this strategic alignment to occur the latent uncertainty that each party holds as to each other's position must be reduced, however, necessitating one party to make the first move in order to encourage the market into action. The form taken by the first move may be the creation of a common institution that performs the function of raising levels of trust between market actors; it may be the imposition of a regulatory framework that uses incentives and penalties (or the threat thereof) to ensure collaboration; or it may be that a significant investment must be made before the commitment of each party to the market can be facilitated.

With respect to planning and development of the built environment all three of these possibilities can be envisaged through the use of, respectively, growth coalitions (for which see Logan and Molotch, 1987), planning regulations and public investment in land remediation and infrastructure. For example, a coalition of stakeholders is often an essential precursor to the effective coordination of development; planning regulations can be used to incentivise development activity; land remediation and infrastructure provision are often essential first steps to stimulate economic activity.

Cooperative action and coalition games

While much of the game theory corpus is occupied by the investigation of non-cooperative games in which the interest lies in exploring competitive interactions, cooperative game theory seeks to explain how and why players cooperate. This is particularly relevant to the real estate development process as land is often held in multiple ownership and must be 'assembled' prior to development. Moreover, the negotiated process that should ideally result in development that accords with public expectations, market conditions and environmental sustainability inevitably requires collective, not individual, action.

Furthermore, given that in the case of planning, competitive interactions may produce costs that are realised as negative externalities, the scope for cooperation and coalition building may be wide-ranging and enduring. However, the best means of ensuring stable collaboration among diverse stakeholders is likely to be highly context-specific. Vexing questions for the use of cooperation in planning practice include that of who is likely to partner with whom; how stable are the coalitions that might emerge; how might 'fair shares' be agreed upon between coalition members; and what effect will coalition dynamics have on the specific character of development?

Coalitions in planning and development may draw their membership from private businesses, the public sector, charitable and third sector organisations, pressure and interest groups and the general public – either as residents or supporters/opponents of one of the aforementioned groups. The coalition interests that may characterise transactions in the assets that planning administers, therefore, may be profoundly dynamic, potentially shifting composition, aims, intensity of involvement and even factional alliances over time. Coalitions may be short-term solutions to first-mover problems or they may be enduring and stable alliances that mature over many decades.

These features are highly context specific and clearly point to the requirement to consider planning under an analytical rubric that specifically deals with the psychology of microeconomic decision-making within groups.

Common to all forms of cooperation and coalition in planning is the ideal that they should be stable for the period over which they are required to function – at minimum the full duration of the development process. Where agents are engaged in a constant shifting of allegiances collective solutions may become less likely. This points to the need for strong frameworks for cooperation in which the relative payoffs to coalition members are sufficient to ensure their commitment – something that can be adjusted through the redistribution of benefit – and/or where sufficiently strong threats and incentives are used to the same effect.

In game theory the ‘Shapley value’, named after its deviser, Lloyd Shapley, describes the most widely accepted ‘fair’ distribution of a surplus among the players that make up a coalition in a cooperative game. The Shapley value is the average of the marginal contributions made by each player once every possible permutation of players has been taken into account. The marginal contribution of a player is the difference between the value of the coalition with and without that player. In real world development coalitions it is crucial that agreement can be reached as to the value of each agent’s marginal contribution to the value obtained by the ‘grand coalition’ of agents in order for this to be distributed among the agents in a way that is accepted as being fair. In terms of its practical applicability the Shapley value has been used to model voting patterns in committees such as parliaments where voter coalitions are formed (Straffin, 1977) – a significant point of tangency for planning where decision making is often embedded within local democratic institutions. As a contextual example, developer contributions to upfront infrastructure investments, without which development may be unviable, or which might make development highly profitable, can be seen as a fair capture of this surplus for the developer which has been generated by the actions of another player in the game (the infrastructure provider).

In certain instances a coalition’s total value is deliberately distributed in a way that is not proportionate to each agent’s marginal contribution. The concept of ‘transferable utility’ is used to explain such cases in which the total value is redistributed from ‘winners’ to ‘losers’ in order to foster the stability of the coalition. Transferable utility may be a relevant feature of the development process where coalitions are comprised of multiple public sector agents of different size or strength and in which an understanding of what constitutes a fair distribution differs from that described by the Shapley value.

Signalling/screening

A key feature of any form of bargaining and negotiation is that each participant’s actions are influenced by their perception of their counterparty’s characteristics. If a player has a tendency to reward a strategy of hard bargaining it may be an appropriate strategy for their counterparty to signal from the outset that they are positively predisposed towards just such a strategy, irrespective of whether this is true or not. There may, however, be a potential cost attached to the act of dissimulation should the player’s true characteristics be revealed. In the case of planning we might imagine a signalling strategy as a classic example of ‘cheap talk’, the costless promise to provide supplementary benefits (Farrell and Rabin, 1996) - such as the pledge to include a certain proportion of affordable housing or a community asset on a site in order to engender goodwill or assume a privileged position in a bargaining situation - only to renege on this at a later date.

This costless form of signalling that encompasses the hollow promises and empty threats that characterise real life informal negotiation and bargaining in the development process once more points to the explanatory value of game theory to this specific set of applied questions. A means of mitigating the dangers of cheap talk is to use screening strategies; that is, to induce the counterparty to reveal their true intentions by using a screening process. Brokerage is a common form of screening strategy facilitating trade by providing transparent pricing and acting as trusted, usually

certified, intermediaries – a form of market regulation – between buyers and sellers. In an unstable land and property market in which the prospect of development is frequently beset by first-mover problems, the provision of collective goods, and the timescale of the development process, it is suggested in this report that planning may perform this essential brokerage role for the development industry.

The implications of this general review of some central principles from game theory is that the unique nature of the inherently microeconomic problems with which planning deals means that planning might best be understood as performing the role of ‘market maker’ for land and real estate – amongst its other social and environmental functions. Some form of planning agency is needed to overcome first mover problems; planning can be instrumental in catalysing development through site assembly and infrastructure provision. It is also an important arbiter between state-civil-market interactions and acts as a broker between coalitions of interest. It may in addition be an important actor in providing stability in the development process, providing a legally-backed set of brokerage services that set the rule book of engagement in real estate development – an important aspect of the confidence in probity and certainty that business craves. This form of transparency and the confidence that the rule book of planning will be rigorously enforced may actually circumvent the need to engage in time-consuming aspects of informal negotiation (signalling and screening) based upon strategic duplicity. CIL is a good example of this transparency clearly codifying an economic role for planners where state-civil-market relations are clearly knitted together. It is one of the clearest examples of the UK planning profession having access to an economic instrument that can be attuned to local microeconomic circumstances. Further research on the longer term effects of CIL is warranted by the success of the policy in Greater London and the South East, where it may have created a spur to development: the virtuous circle where new infrastructure associated with real estate development creates the conditions for further investment in real estate and, consequently, further CIL receipts (RICS, 2012).

An even more economically active role for planning and planners throughout the UK along these lines would mirror the approach to the coordination of development that we see in many Western European nations. In these cases, infrastructure planning and land assembly are used to shape markets, stimulating demand and facilitating the holistic planning of positive development outcomes, thus stimulating development in which state, civil and market actors have a stake.

PART TWO

4. Planning as a facilitator of growth: examples from elsewhere

The retreat of planning in the UK from the initiation of development into a role focused more on the regulation of private development, has not been replicated in other parts of the globe, where a more interventionist approach that is also more willing to engage with markets has evolved (Hall, 2014; PRP, URBED and Design for Homes, 2008; Oxley et al, 2009; Falk, 2014). Common examples cited where such approaches have been applied include Hammerby Sjöstad, a redevelopment of former industrial land adjacent to Stockholm's central business district; various examples of new suburban development built following the Netherlands' ten year housing plan, instituted in 1996, including Amersfoort and Almere; HafenCity, a large-scale, mixed use, redevelopment of former dockland in Hamburg; and Freiburg's urban extension, Vauban (Hall, 2014; PRP, URBED and Design for Homes, 2008).

The conclusion that the UK's failure to provide housing at levels that match current demand could be remedied by the deregulation of planning policy is premised on the implied assumption that this would result in the release of land for development and a correspondingly rapid increase in housing supply. However, evidence from other corners of Europe would suggest that deregulated development controls may incentivise speculative investment, 'land banking' and result in an associated inflation of land values, as has been observed in the relatively more deregulated contexts such as the Republic of Ireland and Spain (Oxley et al, 2009).

Alternative approaches to the delivery of new housing do not, however, offer a diametrically opposite solution with regard to the balance of public and private interests as in the case of the British New Towns programme or Local Authority house building initiatives. By contrast what can be found in examples from the Netherlands (Hall, 2014), Germany (Falk, 2007), France (Colomb, 2007), Japan (Larsson, 1997), Hong Kong (Yau, 2012) and other planning jurisdictions is a process of development in which a strong role remains for planning. This form of planning usually incorporates a market-enabling role while providing the necessary public goods and infrastructure, together with the mediation of externalities, to enable development to occur whilst simultaneously recouping a proportion of the costs related to fulfilling the role of first mover and acting as steward of collective environmental assets.

A number of factors are common to best practice examples cited in the literature. The use of a state investment bank as a way of providing low-interest capital to public agencies is relatively common in Europe, allowing a longer term perspective than may be the case with private finance and reducing exposure to risk in more complex projects such as mixed-use developments (Aghion et al, 2013; Falk, 2014; Mazzucato and Penna, 2014). Up-front investment in infrastructure is used as a way of reducing the exposure of developers to risk, thus encouraging market entry and expediting the process of development. The use of a variety of tenure types speeds up the rate at which newly constructed homes are constructed and occupied, by avoiding the requirement for rapid owner occupation (PRP, URBED and Design for Homes, 2008). Land assembly and master-planning can also provide confidence in the coordination of infrastructure with private investment (Morgan and Cruickshank, 2014).

Prominent in planning approaches in which state and market are systemically closely related in the development process are issues of financing, exposure to risk and value capture. The effectiveness of different approaches taken to these issues depends on local legal and policy frameworks while also being contingent upon conditions at the scale of the development. For example, the probability of overcoming obstacles to land assembly upon which many large-scale developments are

dependent is greatly enhanced where a local state has the autonomy to make land acquisitions using investment raised through local taxation or finance from a state bank.

Alternatively, where local circumstances make it difficult to assemble a site within the purview of a single agency, for instance on brownfield sites subject to redevelopment proposals, the tool of land readjustment has been used. Land readjustment is a method of joint development in which the process of development or, more commonly, redevelopment, is characterised by land and property owners retaining ownership of land throughout the course of the development (Larsson, 1997; Van der Krabben and Needham, 2008). Where conventional procedures such as compulsory purchase, expropriation or gradual redevelopment are deemed to be excessively time-consuming or otherwise inappropriate, land readjustment has been proposed as an alternative model (Larsson, 1997).

In contrast to methods of public development in which compulsory purchase is used, land readjustment uses a process of negotiation to deliver the voluntary transfer of development rights over land and property to a (usually) public development agency at existing use value. Following this, the site is re-parcelled to fit the aims of the intended development, also with the agreement of landowners, before development rights are assigned and returned to landowners (De Wolff, 2004). Participants are compensated for taking part in the process by receiving a proportion of the uplift in land values resulting from the state's action to prepare the site; the relative proportions received by the state and the landowner being subject to negotiation (Van der Krabben and Needham, 2008). In this way property owners maintain a share in the returns from development while the state is also able to recoup costs incurred as a result of its preliminary investment in the conditions necessary to produce new additions in the built environment.

Land readjustment has been used in a wide variety of international contexts, although it has been especially popular in Europe and the Far East. Following the Tokyo earthquake of 1923 and the bombing of Japanese cities during the Second World War, both of which necessitated the large-scale redevelopment of sites in multiple ownership, land readjustment was used and became a default approach in future decades, becoming a significant feature of the Japanese approach to urban transformation over the twentieth century (Larsson, 1997). Elsewhere in the Far East land readjustment has been used in varying contexts within China, both rural and urban, (Li and Li, 2007), while the lack of available development land and requirement to replace urban decay has meant that land in multiple ownership has almost always been required for redevelopment projects in Hong Kong (Yau, 2012). In Europe, similar models have been employed in Germany, France, the Netherlands and Sweden (Turk, 2008).

5. Research aims and questions

In light of this review of literature this research seeks to address two questions:

1. In what ways has planning practice in some European contexts been reformed with the aim of encouraging a wider and economically active role for planning professionals?
2. Has the reform agenda introduced in such contexts resulted in any qualitative change in planning outcomes?

The research proposes to investigate planning at the micro scale in order to elucidate the practices of negotiation, bargaining and brokerage that characterise state-civil-market relations in the development process. In so doing we hope to draw insights that might strengthen the position of planning in determining the rules and norms by which such negotiations are governed, using knowledge of information asymmetries and their influence on the strategies employed by market

actors to ensure economic progress is not isolated from the issues of environmental sustainability, democratic self-determination and equity. Concepts drawn from game theory will be used to aid understanding of the issues faced, and strategies adopted, in the development process. For example, the recent 'stand-off' between government and Land Securities, the main landowner in the Ebbsfleet Garden City development reported by White (2014) might be characterised as a 'first mover' problem in which Land Securities have signalled their risk-averse nature in order to prompt a first move in the shape of infrastructure investment necessary to catalyse the development as a whole.

6. Methodology

In line with one of the proposals for further research made by Adams and Watkins (2014), the project uses cross-national research as a way of gathering data that may be used to inform research on planning in the UK.

While negotiations in the development process have been empirically analysed using approaches derived from experimental economics and game theory (Samsura et al, 2010, 2015), the intention of this study is to use comparative qualitative research in order to bring to light insights from case study examples in which negotiations between state and market actors can be understood in the context of concepts drawn from behavioural economics. The comparative approach is considered the most appropriate method for this research given its desire to understand better the role of planning in different contexts, an aim that makes experimentation impractical and of limited explanatory value.

The research, therefore, requires the scrutiny of plans and policies together with an in-depth knowledge of processes and strategies of negotiation that may not be in the public domain. Given this, a research strategy consisting of the documentary analysis of academic literature and policy documents, coupled with semi-structured interviews with policy actors alongside other market participants, was employed to gather data.

7. Case study selection

Cases have been selected based on a thorough review of secondary literature to reflect contexts in which the development process turns on an economically active role for the planning profession and where (re)development is understood to be dependent upon the microeconomic coordination of public agencies (such as planning) and landowners/developers. Cases were, therefore, chosen with the express purpose of investigating alternative ways of organising the animation of development from some of the UK's nearest neighbours. The underlying intention of this approach to case study selection is to explore the potential lessons that might be learnt from a strategic approach to coordinating the development process through public agencies setting the 'rules of the game'.

The evidence on land readjustment policies offers a rich seam of such examples, given that negotiations between public agencies and landowners form a core part of this method of land assembly and development. Also notable of land readjustment is that the method may be altered by a given jurisdiction depending on what outcomes are considered desirable. This is most obvious in the issue of capturing land value uplift, which may be used by public development bodies to cover development costs, though a wealth of examples from across the globe make clear that the needs and demands of local contexts can be used to make amendments to the particular land readjustment model used.

Dutch planning is an oft-cited model from which concepts and practices have been studied with a view to their use in other national contexts (Faludi and van der Valk, 1994). While the replicability of Dutch planning methods has been questioned (Pojani and Stead, 2014), similarities with the UK in terms of development rights as well as housing shortages, which began to become apparent in the early 1990s, provides grounds for a Dutch case study. Additionally, land readjustment has recently been introduced in the Netherlands on a trial basis, building on several years of policy research there that have produced an up-to-date knowledge base.

In the case of land readjustment we use cases from across the Netherlands. As land readjustment has been applied in a range of development projects across the country we have sought to use as wide an evidence base as possible. The study will seek to engage with both academics and practitioners to learn how policy was designed and how the Dutch planning profession has had to adapt to this more economically active agential role.

The HafenCity development in Hamburg offers an alternative method in which state-market cooperation forms a core part of the development process. HafenCity is a redevelopment of a former dockland site on a significant scale, involving 155 hectares of land, 12,000 residents and 40,000 employees, together with around €5bn of private investment and around €1.2bn of public investment (Bruns-Berentelg, 2013). By opening up market competition in the early phases of development while using cooperative strategies during later phases, HafenCity's developer, a state-owned company, has sought an innovative strategy for the alignment of private investments with the social objectives of public investment (Bruns-Berentelg, 2006). Given the use of strategic bargaining with private actors within a model of public land development, HafenCity offers an appealing case study. Additionally relevant to contemporary governance debates in the UK is the fact that Hamburg is a 'city state' within Germany's Federal Republic, a role that grants it extensive devolved powers and budgetary control.

The metropolitan authority of Lille is an example of an alliance of local government actors using central government direction to form a city region scale coalition. Over the past 25 years Lille has successfully utilised models of city regional governance and public-private urban development funding models to redevelop and regenerate its urban fabric and economy. Lille offers the opportunity to apply an understanding of coalitions and collaborations drawn from game theory for the purposes of exploring the functioning of real world coalitions for planning and development.

Three contrasting models of development are selected in order to explore differences in the nature of coordinated development including circumstances in which the state acts through a powerful city-regional scale planning agency, as is the case in HafenCity, where urban redevelopment has been achieved at the city regional scale through a coalition of local government actors, as in Lille, and in which the state uses an economically active planning system to act as broker in redevelopment projects where land is held in multiple hands, as has occurred in Nijmegen. All three cases echo circumstances that either currently exist or are emerging in the UK.

8. HafenCity, Hamburg: a powerful city-state uses land assembly and strongly determined rules to achieve economic and social aims

Summary

HafenCity is an exemplar case study of how positive planning can improve supply and quality in the built environment. Through the state and the city developing a strong planning institution that was able to undertake upfront land assembly and infrastructure provision, planning was able to shape

the form and structure of development in the area, encouraging a density and quality commensurate with the economic aspirations of one of Germany's most affluent cities. Because of the demand boosting functions of infrastructure provision, the planning institutions were in a strong position to garner competition within the development industry and receive commitments to quality of development from a private sector operating under greatly diminished risk. By taking a lead in land assembly, the planning authority was able to better ensure the ultimate development of sites by fostering competition in the development sector and ensuring delivery to-plan, circumventing first-mover problems.

Often in the UK infrastructure provision and land assembly are reactive responses to private sector proposals for development. This prevents an overall vision being developed for an area that can achieve wider benefits, such as meeting density and volume requirements for house-building, ensuring environmental sustainability of transport and delivering quality in design. The HafenCity model shows how well resourced, empowered planning institutions can use the full range of planning tools to deliver place outcomes that enable better long-term economic, environmental and social outcomes.

Background

Hamburg, situated around 100km inland from the North Sea on the banks of the river Elbe, is Germany's second largest city, with a population of 1.7m, and has the highest per capita GDP in Germany (OECD, 2013). A significant contributor to this is its port, which is the third largest in Europe in terms of total goods traffic and the second largest in terms of container traffic (OECD, 2012). Not only important in the city's economic profile, as with any port city, Hamburg's urban form is to a great degree shaped around its dock areas which have provided scope for the expansion of the city as containerisation has pushed port activities further away from the city's historic centre in search of greater space.

Alongside Berlin and Bremen, Hamburg is a city-state (with the full title of the 'Free and Hanseatic City of Hamburg' owing to its historical status within the Hanseatic League) in which municipal powers over planning, water and sanitation are governed at the same scale as higher education and regional economic development. Crucially for the purposes of public investments in the city Hamburg's status as a city-state means that a greater proportion of the taxes raised there are retained within the city than would be the case in Germany's other federal states.

Context for planning and development

The City State of Hamburg is attempting to deal with greatly increased demand for housing primarily by means of brownfield and infill development. In part this is due to a commitment to sustainability that emphasises the efficiency benefits of utilising existing urban infrastructure and in part as a means to locate new households within the Hamburg city-region's tax base. This is set out formally in the Hamburg Spatial Concept (*Stadtentwicklungskonzept*) of 1996, which sets out the city-state's aspiration to focus new development on brownfield sites within the city at high density under the banner of 'more city in the city' (Schubert, 2014). That the strategy of the development industry is strongly dictated by this brownfield focus is borne out by interview data (Martens interview, 2015).

The focus of housing growth on existing urban areas presents a more complex scenario in terms of the development process, in which multiple actors become involved, with roles for the public and private sector, together with neighbours to the development, to be played over issues such as land remediation and waste management.

In addressing its desire to increase the housing supply in a way that allows it to maintain control over quality and type of new dwellings, as well as enabling it to integrate buildings more fully with each other and with the rest of the city, Hamburg has utilised its stock of public brownfield land. This is made up of sites that accommodated a former hospital, postal service depots, armed forces facilities and other public uses. Most significantly within this brownfield land is the extent of former dockland made available to the city-state in locations close to the city centre as the city's working docks migrate further into the Elbe estuary in order to cope with larger docking vessels.

HafenCity

The area now being constructed as HafenCity, which translates as 'harbour city', was, during the latter half of the 19th century, developed from marshland to be the city's dock area. Subsequent light industrial uses followed and the area grew in size as the capability of the docks to handle larger shipping developed (Brunns-Berentelg, 2014).

Resulting in part from Hamburg's shortage of housing and the city-state's decision to only situate new housing development on brownfield sites inside its boundaries, the HafenCity concept was presented by the city in 1997 as an entirely new district of Hamburg that would expand the existing city centre area by 157 hectares (HafenCity Hamburg GmbH, 2015).



Figure 1: HafenCity's urban layout is almost entirely built out from scratch.
Source: author's own.

The emergence of HafenCity must be seen in the light of the planning and development that preceded it in Hamburg's former port areas. As a number of publically owned sites in the city's dockland became available from the 1980s onwards following the geographical shift in port activities requiring greater space, ex docklands were sold to private sector developers. This series of developments linked the western suburbs of Hamburg to the waterfront, ultimately cemented by the addition of a riverside promenade that connects the various projects together. Collectively labelled the 'String of Pearls', the development of this sequence of sites suffered from a lack of coherence, as issues related to the planning and development of each had to be addressed separately, without the opportunity to harmonise the development process (Schubert, 2012).

When Hamburg city-state chose in the mid-1990s to redevelop a significant piece of land adjacent to the city centre that had previously been used for port facilities a different approach was taken. Noting the difficulty previously encountered in aligning the timeframe of construction for the String of Pearls projects while recognising that the land to be redeveloped in this instance was much larger and thus would need a sense of urbanity to be created from scratch, the city-state re-examined its options. In addition to the need to learn from experience was the sense that the tendency for urban mega projects to reproduce generic concepts, and the corresponding failure of these to generate liveable urban settings (Gualini and Majoor, 2007), could be stemmed by the use of a more strategic approach. This coincidence of factors encompassing the city's own experience of waterside development, a view of urban projects informed by experience elsewhere, and the particular requirements of the HafenCity site, in which a new urban district, equal to around 40% of the existing city centre, was to be created, led to the formulation of a model of urban development that sought to use a state-led strategic approach to draw in private investment and expertise.

Key steps in the gestation of the project were the establishment of a state owned development company 'HafenCity Hamburg GmbH' (then known as *Gesellschaft für Hafens- und Standortentwicklung*, GHS) that would oversee the redevelopment of the area, and the transformation of the legal status of the land in order to allow for expedited infrastructure planning.

While around 70% of the land to be developed was already under the ownership of the city-state (Bruns-Berentelg, 2015), HafenCity Hamburg GmbH was initially tasked with bringing the remainder of privately owned land into public hands. Following this, the agency was granted the overall responsibility for managing the HafenCity development.

The financing of HafenCity depended upon the passing of a law by the city-state parliament that allowed for the creation of a 'City and Port' special fund for the development of both HafenCity and a new container terminal. Publically owned land in HafenCity was transferred as an asset into this fund, which was subsequently borrowed against in order to finance the construction of the container terminal. HafenCity is thus directly linked to the construction of new port facilities, a relationship seen as being important in securing political consensus across the HMR for the development (OECD, 2010).

While major public investments such as a subway line extension, schools, a new university, a concert hall and museums are financed by various City State government departments, the special fund is used to finance the infrastructure – road building, bridges, public spaces, flood defences, marketing and the relocation of businesses where necessary – essential as a condition for further private sector investment. Land sales are used both to finance the running of HafenCity GmbH and to pay back loans raised against the City and Port fund. Total public expenditure of approximately €2.4bn has been complemented by private investment totalling approximately €8.4bn (HafenCity GmbH, 2015).

Hamburg City-State	HafenCity Hamburg GmbH	Private Sector
Organises HafenCity as a special development zone for state-, rather than municipal-level planning	Acts as public landowner, having received land from the city-state at zero Cost. Finances its activities through land sales, with a financial target to break even	Develops concepts for individual plots, responding to tender specification and frameworks created by HafenCity GmbH
State commission approves development plans and land sales	Development planning (in cooperation with Hamburg City-State)	Constructs on individual plots (excepting the Überseequartier, for which a single developer is responsible for 16 buildings)
Prepares development plans and urban design guidelines (in cooperation with HafenCity Hamburg GmbH)	Planning and building infrastructure (streets, bridges, parks, promenades, public squares) prior to plot development	
Grants approval for building permits	Setting development frameworks for urban quality enhancement and innovation (for instance with regard to sustainable transport use)	
Finances and builds major infrastructure (subway, schools, university, cultural facilities)	Acquisition of investors, builders, users of major plots	
	Selling of plots for development	
	Marketing and communications	

Table 1: distribution of roles among market actors in HafenCity. Source: Adapted from Bruns_berentelg (2015).

The institutional context for the development of HafenCity thus encompasses the city-state of Hamburg, HafenCity Hamburg GmbH and a range of private sector investors and developers. The roles and activities of HafenCity's institutional actors are summarised in table 1.



Figure 2: generous provision is made for public space in the City State-authored plans.
Source: Author's own.

HafenCity Hamburg GmbH is operationally independent of its owner, Hamburg City State, and is formally responsible for the development of HafenCity, acting as the partner for private sector investors and developers as well as state and third sector agencies, while being the trustee of the City and Port special fund. The City State's role, in addition to its capacity as funder, is to use legislative and policy measures to enable HafenCity Hamburg GmbH to function effectively. A state commission within the City State is responsible for the approval of development plans, urban design guidelines, and building permits.

The HafenCity model of development

Of key importance in the case of HafenCity is that the development is intended to achieve the economic and social ends of the city-region rather than to minimise the level of risk taken on by the public sector while earning the maximum possible returns from land sales. Instead of acquiring the interest of the small number of private sector developers able to develop at scale and dividing up the HafenCity site for sale accordingly, thereby taking the site out of public hands and limiting the role of the public sector to the provision of infrastructure, Hamburg City State chose to use the public sector intensively throughout the development process.

In the course of interviews conducted with city officials a series of reasons were put forward for why the first moves in the development of HafenCity should be state authored plans, animated in the first instance through infrastructure provided by a development company financed through a state bank:

- The aim of incorporating a strategically masterplanned new quarter of the city with the existing urban fabric required an approach that militated against piecemeal development;
- Ensuring the adequate provision of public goods could only be guaranteed through the state acting as first mover and setting the standard for what new development should comprise;
- The large scale of the area to be developed as an integrated whole required a level of strategic overview;

- The long term perspective required by such a wholesale redevelopment would be jeopardised by the business model that underpins real estate development in most contexts – certainly those in the West. Traits of this business model were said to be volatility, a predisposition to be highly recession prone, susceptibility to short term changes in macro economic climate and inherent risk aversion;
- The importance of infrastructure development on such a large *tabula rasa* site, which would be difficult (and unusual) to finance from within the private sector;
- The ability of the City State as a devolved political authority to access capital at lower rates over longer pay back periods and;
- The scope for an urban development corporation to create a coalition that allied business acumen, political trust and the capacity to encourage innovation in the development process (Bruns-Berentelg, 2015).

The City State is thus fulfilling the function of ‘first mover’ in the development process by undertaking site assembly and infrastructure delivery on a scale that, for a variety of behavioural characteristics associated with the business model upon which real estate development in Hamburg proceeds, would prove difficult to realise under a wholly private sector delivered approach. Worthy of particular mention in this regard are the restraints created by a risk averse real estate industry and a business model that is not easily adapted to the specific time value risks necessitated by a redevelopment programme of an exceptionally long duration. The central presence of a fiscally strong planning agency backed by a state bank made collective actions such as site assembly and the provision of infrastructure possible to catalyse the wider (private) development; something that the free rider problem would have militated against had this essential preparatory work been left to the private sector.

Jürgen Bruns-Berentelg, CEO of HafenCity Hamburg GmbH, has identified the most important factors of the model of development used as: relating the project to the robust overall strategy of the City State with respect to favouring development on brownfield sites; an appropriately bounded spatial strategy; reducing risk for the development industry; whilst increasing competition amongst the development industry; increasing transparency; reducing free rider strategies and coordinating development timescales; increasing innovation and quality; increasing diversity and creating market niches; and creating appropriate infrastructure environments that construct a favourable ‘mental map’ of HafenCity (Urban Land Institute, 2007, cited in OECD, 2010).

Three key elements in the development process encompass these factors. The foundation for the development is the model of financing used, which grants HafenCity Hamburg GmbH a considerable degree of certainty, allowing it to act confidently without the need to change course substantially in the face of short term changes in economic conditions and circumventing the need to seek out further funding. Nevertheless, the agency’s long term budget must be balanced and rising costs can be recouped by, for instance, raising building densities. With a sound financial basis in place, a development framework has been devised that is intended to involve public and private expertise in the generation of a high quality urban environment. The intention is to use public investments and institutions to deliver an acceptable rate of return for private developers within a template that safeguards social and environmental objectives such as the provision of public spaces (OECD, 2010).

The second important element is the drafting of a Masterplan in which different quarters are identified and located, and plot sizes and densities devised. This task was achieved jointly by the Ministries of Economy and Urban Development at the project’s inception, and has been modestly adjusted over time as sub-districts have been further developed. A second iteration of the Masterplan was issued in 2006 with only minimal additions.

The third, but potentially most significant, element is the framework, or rule book, that governs the administration of land sales. This has four stages: market mobilisation; tendering; granting of exclusive option to build; and sale of land. These are discussed in detail in the following sections.

Market mobilisation: Opening up the rulebook

The need for market mobilisation is based on the understanding that the neoclassical assumption that market participants are endowed with sufficient knowledge of prevalent market conditions is potentially erroneous in the context of real estate markets (Bruns-Berentelg interview, 2015). On this basis the development of HafenCity proceeded on the assumption that there is a need to generate a widespread understanding of this knowledge of prevailing market conditions *ex ante* and transparently disseminate it through public meetings, consultation events and the production of planning documents such as development prospectuses and masterplans.

This issue of information availability relates closely to the notion in game theory of the ‘information set’: the aggregate of what is known to each player at each point of their turn in the game. HafenCity Hamburg GmbH has distributed a great deal of information with regard to each plot’s specified requirements prior to the tendering process, adopting a strategy of transparency in order to raise the standards of proposed developments rather than seeking to avoid putting information into the public domain in order to achieve a position of informational dominance. Given that in game theory asymmetrical distributions of information tend to favour the ‘player’ with the more extensive ‘information set’, this desire to implement a symmetrical distribution of information appears counterintuitive. The corresponding implication is that the agency’s strategy is not to ‘win’ in any conventional sense (such as maximising planning gain contribution) but rather to raise the overall standard of development in HafenCity in order to achieve the City State’s social and economic aims in the long run.

Competitive tendering: Concept over price

Under the model of land sale used plots are not auctioned to the highest bidder but released according to detailed tender specifications by means of a points system of which 30% relates to price. The remaining score is awarded on the basis of the concept developed by the private sector bidder designed to respond to the tender document’s requirements for such features as energy efficiency and architectural quality. Some of these specifications relate to the aims of the City State that are present across the whole city, such as the proportion of affordable housing (the rental value of which is defined in relation to the salary band of potential tenants rather than as a relative measure of prevailing market rents) while others, such as the architectural quality, are specific to HafenCity.

A competition is thus created into which private sector developers may enter should they wish to pursue development in HafenCity. It should be noted, however, that the competition is heavily weighted in favour of the conceptual and architectural value of developers’ proposals over the proposed cost. This places a great deal of importance on the qualitative process of reviewing tender documents, an emphasis which deliberately does not attempt to reach the market value of the site. Economists refer to this strategy of sale as a ‘beauty contest’ (Kocher and Sutter, 2005), noting its unpredictability and subjectivity. Game theorists often prefer the auction as an allocative mechanism, commonly citing three reasons. First, auctions are seen as being able to attract new entrants to the market who may be discouraged by ‘beauty contests’, believing themselves unable to succeed in a subjective context but encouraged by the transparency of the auction. Second, auctions militate against collusion, regarded as a possible consequence of allocative strategies that

involve some degree of bargaining. Third, because auctions remove non-binding commitments, or 'cheap talk', from the bidding process, by using a quantifiable and decisive factor to allocate land.

Despite these general concerns the value of a beauty contest as part of the market mechanism in real estate development, where aesthetics are so fundamentally important and the product should last for decades, is clear. Indeed, interviewees in Hamburg strongly supported the concept of a beauty contest as being particularly relevant in animating real estate markets as the design character of new architecture is deemed to be such a significant element of its true value. Interviewees pointed to the fact that placing the emphasis on the quality of the proposed developments encouraged a culture amongst developers that prizes creativity, aesthetics and build quality over one that reifies price competition. The bias towards concept and quality over price, said to be a behavioural trait that underpins the enviable success of the German industrial model (Betts, 2004), is inscribed into the HafenCity tendering process. That land sales take place sometimes at below prevailing market values was further justified by HafenCity Hamburg GmbH as a consequence of the demanding provision for collective goods imposed on developers (Bruns-Berentelg interview, 2015). This recognises value as a multidimensional concept and moves beyond the exchange value of buildings to focus on their use value and, more widely, their social, environmental, aesthetic and cultural value, all of which are held to contribute benefits at the wider urban scale (Adams and Watkins, 2014).

Although categorically less transparent than an auction it was suggested by interviewees that this form of allocation of publically owned land is sufficiently recognised in Hamburg to have become an established norm within the development industry (Bruns-Berentelg interview, 2015; Martens interview, 2015). This is reinforced by the public nature of the tendering process in which, following the announcement of a tender for a particular plot, a four week period is imposed during which potential buyers can submit questions to the agency, the responses to which are publically disseminated (Martens interview, 2015).

In the case of residential and mixed-use developments an additional mechanism used to raise the quality of the urban environment is 'spatial segmentation'. This refers to the division of land into small plots, each to be sold individually according to the rule that each developer is entitled to purchase only a single plot in HafenCity rather than the conventional approach in contexts such as the UK where large sites are developed by volume house builders (Bruns-Berentelg, 2015). The strategy of spatial segmentation is designed to draw in a wider range of market entrants than would be the case for larger scale developments, which would cater only for the more limited number of developers able to operate at that scale. It is suggested that this greater range of developers raises the level of competition leading to improved submissions in the tendering process and, ultimately, a better quality of development (Bruns-Berentelg interview, 2015).

In the case of office developments a contrasting approach is taken. The level of competition between developers is deliberately reduced as 60-70% of office plots are allocated on a non-competitive basis. The reasoning behind this is the prevalence for speculative investment in office development and the desire in HafenCity for a low risk office market (Bruns-Berentelg interview, 2015). In place of a competitive bidding process, office development is allocated by inviting companies as potential end users to visit HafenCity with their staff in order to inform their view of whether they might wish to base themselves there. If a company then wishes to open an office in HafenCity it is required to pay a non-negotiable value based on the tradable value for comparable office developments elsewhere in Hamburg for a site selected from a limited number by the agency. Interviewees reported that by limiting competitively awarded office development to 30-40% of the market and allocating the rest on a more low risk basis, HafenCity is more resilient to economic shocks. This is borne out by HafenCity's office market having recovered more readily than

comparable places from the 2008 financial crisis, showing relatively low rates of office vacancy (Bruns-Berentelg interview, 2015).

Option to build: From competition to cooperation

Once the preferred bidder has been identified following the competitive tendering process an exclusive option to buy is granted, conditional upon the payment of a non-refundable deposit of 1-3% of the bid price. From the award of the option the land must be purchased and development commenced after 18-24 months. While the tender document contains a fairly prescriptive description of what must be constructed, a process of negotiation is nevertheless required between HafenCity Hamburg GmbH and the private sector developer during which, it is argued by policy makers, value is added to each development through developer input and fine-tuning of proposals. While this imposes costs on the development as already extensively developed concepts are further adjusted, the collaborative negotiation process is held to add value, build a cooperative working arrangement and entail a reduction in risk for both parties, as the certainty of planning permission being granted to the developer is raised while the agency is given greater assurance that the development will be to an appropriately high standard (Bruns-Berentelg, 2015).

During the competitive tendering phase proposed developments must respond to the prescriptions set out in the tendering documents. Deviation from this brief results in exit from the tendering process. Subsequent to this, during the option phase, the rules of the game dictate that negotiation may take place without either party leaving the process, providing that neither side violates the terms already agreed. Understood in the terms of game theory this illustrates a clear demarcation in the process between an early stage where a fundamental sanction – the desire to win the competition – conditions the behaviour of developers, followed by a negotiative phase in which signalling and screening strategies might be deployed to test the parameters of what the development might comprise. For example, were a developer to signal their intent to incorporate a feature into their proposed development at the tendering phase, this feature would have to be included in the development proposal obviating the impulse for ‘cheap talk’ at the moment where negotiations become binding. Following this, at the option phase, there is scope for the developer to signal potential directions the development may take that can, ultimately, be removed. This process that in game theory is understood as ‘cheap talk’ might more appropriately here be understood as the creative process by which new architecture is commissioned.

This aspect of the process is accepted by HafenCity Hamburg GmbH as an inevitable feature of the initial negotiations between state and market that condition all development. Interviewees report that structuring the process in this way allows for more meaningful dialogue as general debate is confined to the period prior to site acquisition at a moment when the developer is not yet subject to the financial obligations of owning the site that can result in unwanted delays and ultimately hurried development in other contexts. Moreover, the value of a formal round of cheap talk resides in establishing a common sense of purpose between developers and planning agency.

Ensuring this round of cheap talk is productive is made more likely by the manner in which it is structured. The developer’s sunk investment, including the concept development prior to winning the tender and the non-refundable deposit guarantee commitment from the private sector. Also significant are the imposition of a time limit within which the site must be bought which limits the use of ‘delaying tactics’ and the possibility of the agency withdrawing the option to develop, which it has the right to do where evidence of cooperation, such as the preparation of architectural plans, is not forthcoming. This approach was regarded by interviewees as encouraging only serious proposals to come forward for full consideration (Bruns-Berentelg interview, 2015).

Processes	Instruments	Values
Market mobilisation based on place-specific target concept	Target group presentation and documents Public discussion	Knowledge density generation extends and deepens the knowledge base
Tendering process 70% concept / 30% price Different prices set for different uses	Tender documents	Competition process biased towards concepts
Granting of exclusive option	Exclusivity agreement (binding option)	Cooperation process and (latent) negotiation process
Sale of land on detailed contractual basis	Sale contract	Commodification / de-commodification process Fixing the results and establishing the resilience of public goods features

Table 2: The HafenCity development model: processes, the instruments used to initiate these, and the values attached to them. Source: Bruns-Berentelg, 2015.

Upon completion of the negotiation process land is sold on a detailed contractual basis and development may commence. Once public land is sold it becomes a commodity to be developed into a built product available for lease or sale. Accompanying this commodification process is what Bruns-Berentelg (2015) terms a 'de-commodification' process, in reference to the collective, public elements of plot development that are written into the purchase contract, as part of the intention to construct an integrated urban district. Public features might include, in the case of an office development, public open spaces surrounding the building and mixed uses at ground floor level such as cafés and retail premises. In the process of the production of a private commodity (commodification) public goods are also produced (de-commodification).

Infrastructure investment as collective action

As a virtual *tabula rasa* site developments in HafenCity were unable to make use of existing infrastructure raising the question of who should pay for new infrastructure. Mechanisms for paying for infrastructure investment associated with new developments exist in Hamburg as a payment made to the City State following a process of negotiation. As elsewhere these mechanisms aim to ensure 'fairness' understood to mean that each party bears costs proportionate to the advantages they receive. Viewed through the lens of cooperative game theory this can be understood as an action necessary to ensure the durability of the coalition of actors engaged in the development process. In HafenCity the system of case-by-case negotiation for value capture usually used in Hamburg is dispensed with in favour of one in which infrastructure costs are collectively allocated to HafenCity as a whole, prior to the setting of a sale price for each site.

Rather than entering a period of negotiation with developers over infrastructure costs sites are presented for development at a price inclusive of infrastructure and other public goods costs. Because the construction of infrastructure is not paid for directly by land sales there is no need to link the sale value of each particular plot to the cost generated by it for infrastructure investment. This replacement of case-by-case negotiation with a system of overall cost management places HafenCity Hamburg GmbH in a strong position within the development coalition of public and private actors. The assurance that developers will make payments towards public infrastructure investment is made at an early stage in the development process when each plot is initially put out to tender. This formalised system of internalising the value of the development company's first

mover role across the full territory to be developed removes the incentive for protracted individual negotiations with developers over planning gain contributions. As infrastructure is masterplanned, delivered prior to development and priced into the tendering process the disputes that might stall or prevent development in less well regulated contexts regarding how infrastructure should be provided by multiple private developers is avoided.

Reducing risk

By taking on the role of first mover in the development process the City State of Hamburg has chosen to take on financial risk in order to ensure that development on the scale desired can take place according to mutually agreed specifications rather than simply those produced by the market. This first mover risk encompasses the possibility that initial investment will not be fully recovered, that the overall development will prove to be an overestimation of the demand for construction, and that the timescale of the development (HafenCity's Masterplan was approved in 2000 while it will not be completed until 2030) will mean that it must withstand the rigours of prolonged exposure to global economic cycles. The financial crisis of 2008 onwards constituted an economic shock of unexpected proportions that slowed development of HafenCity's Überseequartier – the central retail district and the only large site awarded to a single developer – which paused when its developer entered administration.

For the private sector the principal risk involved in the development process is fundamentally attached to the probability of obtaining planning consent. Site acquisition is therefore to some extent a speculative venture in Hamburg as in the UK. In HafenCity, any risk attached to the obtaining of planning permission has been eliminated by the public sector development agency, which issues tenders for sites with planning permission attached. Additionally, as discussed already in relation to infrastructure investment 'free rider' strategies are untenable in HafenCity. Risk has, therefore, been shifted from the land purchase stage to the concept development stage. One way of interpreting this choice is that Hamburg City State has apparently chosen to accept a lower initial price per plot than it might have been able to extract from developers under other systems of allocating development rights in exchange for implementing a process that arguably results in a higher quality built environment. The provision of public goods has been priced in to the development process.

Conclusion

The lodging of considerable development powers including finance and revenue raising ability at the city region scale allows the City State of Hamburg to make a large-scale investment in the future of the city, while promoting its social aims in the form of a public sector-led and (mostly) private sector constructed urban extension. The risk taken on by the City State is considerable involving the investment of €2.4bn to date. However, this initial risk must be balanced against the fact that future value created by the City State's investments will largely remain within the City State in the form of tax revenues and private investments due to its degree of local fiscal autonomy.

A game theoretical interpretation of the HafenCity development process might suggest that Hamburg City State has acted to shape a context-specific 'state of the world' (Rasmussen, 2007) in which its desired outcome can transpire. It has done this by using its favourable endowment of power in three ways. First, it has acted as the first mover in the development process. Second, it has lowered asymmetries of information by the *ex ante* generation of context specific market knowledge regarding conditions for investment in HafenCity. Third, it has set the payoff/outcome structure of the system by which development rights are allocated to justify its up-front investment. HafenCity Hamburg GmbH refers to this approach as 'fixing the results' of development through a process of

'de-commodification' that establishes 'the resilience of public goods features' in the development process (Bruns-Berentelg, 2015).

General lessons that may be drawn from the example of HafenCity include:

- It may be possible to raise the standard of development proposals by 'opening up the rule book' of the development process by encouraging transparency of market conditions and public investment frameworks. The open publication of documents, such as design briefs, is one example where the clarity that businesses prize so much can be achieved.
- 'Beauty contests' may lower the tradable value of sites but in doing so they equate a loss of state-realised revenue with highest common denominator expectations regarding the production and build quality of wider public realm.
- HafenCity's allocation of 60-70% of office development by non-competitive means, involving the invitation of potential commercial residents to visit and engage with the project, has sacrificed revenue for stability. This may be a prudent strategy for risk reduction for development projects that take place over such a lengthy timescale during which property markets are at greater risk of experiencing the effects of the business cycle.
- Some degree of 'cheap talk' at an early stage of the development process may be valuable in establishing a common sense of purpose, encouraging creative designs and ultimately raising the quality of development.
- Dispensing with case-by-case negotiation over infrastructure payments in favour of the use of a non-negotiable contribution agreed at the start of the development process raises stability and reduces the scope for free rider strategies at later stages, at which point the public sector's ability to use threat strategies to ensure compliance may be weaker.

9. The Lille metropolitan region: a city region scale coalition uses mutual interdependence to foster economic revival

Summary

The Lille metropolitan region case study illustrates how regional cooperation and strategic spatial planning can deliver economic outcomes superior to those where jurisdictions are traditionally uncoordinated. Coalition building, whereby neighbouring authorities pool resources in order to subsequently share the proceeds of investment that would be greater than they could achieve in isolation, is central to the growth of the region. Strong planning institutions and tools, devolved funding, and local leadership that encourages strategic spatial planning is central to the delivery and maintenance of this model.

The pooling of devolved resources and an overarching regional coordination enables an ambition in infrastructure and planning that is not frequently seen in the UK, perhaps with the exception of the Association of Greater Manchester Authorities (AGMA). The ongoing devolution agenda in the UK represents an opportunity to correct this and ensure that functional economic areas are able to plan at the most relevant and efficient scale for their future economic development.

Background

Lille lies in the Nord pas de Calais region of north eastern France on the border with Belgium. Through coal mining, steel manufacture and textile production it became, alongside Lorraine, the centre of the industrial revolution in 19th century France (Hall, 2014) while the region's textile industry was second globally only to that of Manchester and south Lancashire (Fraser and Baert, 2003). The city of Lille is physically contiguous with the neighbouring cities of Roubaix and Tourcoing to which it has close historical, economic and social links while the new town of Villeneuve d'Ascq makes up the fourth major urban centre in the conurbation. The functional relationship between these centres is a complex polycentric arrangement, rather than a straightforward core-periphery pattern. The use of strategic planning to address cross-border issues is also explored in a recent RTPI policy paper (RTPI, 2015).

Context for planning and development

To understand the form of planning and regeneration undertaken in the Lille metropolitan region requires a brief acquaintance with the post-war history of French regional spatial planning and economic development efforts. Hall (2002: 153) regards the system of regional planning in France, which he refers to as national/regional planning in order to emphasise the importance of the relationship between these two scales, as being 'unparalleled, in its comprehensiveness and sophistication, in the western world'.

In the 1950s 21 economic planning regions – each an aggregation of *départements*, themselves made up of communes, the smallest administrative area in French government – were established, staffed with a *préfet* from central government, together with a standing conference of regional civil servants and a panel of experts drawn from such areas as industry, trades unions and universities (Hall, 2002: 153).

These were combined in the 1960s with *métropoles d'équilibres*, which constituted an attempt to re-balance the French economy away from its longstanding Paris-centric distribution by using public investment to lay the foundation for private investment as a route to raising the level of economic and population growth. The designation of *métropoles d'équilibres* in addition to the use of economic planning regions was not intended as a contradiction between regional and city scales but, rather, as an acknowledgement that urban areas can act as centres of economic development for their wider regions (Hall, 2002). The neighbouring cities of Lille, Roubaix and Tourcoing were selected as the first of these, with the aim of adjusting the local economy from its declining basis in coal mining and textile production.

A further round of decentralisation followed in 1982 with fiscal devolution from central government ministries to the regions for the purposes of infrastructure investment as an aid to regeneration efforts. Following this in 1989 the device of the *contrat de ville* was introduced as a formal contractual platform for partnerships of the state, local government and private bodies, to be used in the implementation of major urban projects as part of the tenth national plan. The combined weight of these reforms, together with the *versement transport* – a hypothecated tax on employers to fund transport investment in use since the 1970s – is regarded as having been the spur for a wave of investment in French regional cities during the 1990s and 2000s, as a series of transport, cultural, educational and otherwise projects were unveiled (Hall, 2014).

The Métropole Européenne de Lille



Figure 3: The Euralille office and retail development, located adjacent to the high speed station that lies on the London-Brussels and Paris-Brussels routes. Source: Author's own.

Prior to being selected to become a *métropole d'équilibre*, Lille-Roubaix-Tourcoing had been designated in 1966 as one of 14 *Communautés Urbaine*, or metropolitan authorities, as a solution to the difficulties of governing what was effectively a single contiguous urban region using a proliferation of communes. It has since become a state requirement to cooperate at the inter-communal level, with a number of different models of *Établissement Public de Coopération Intercommunale* (EPCI) available. As a metropolitan authority, as opposed to a metropolitan government, the *Communauté Urbaine de Lille* (CUDL), which in 1996 became the *Lille Métropole Communauté Urbaine* (LMCU) and in 2014 the *Métropole Européenne de Lille* (MEL), was not a directly elected body and was governed by an assembly of commune councillors who had been nominated at commune level. The original responsibilities of the CUDL were in public transport, waste management, water, and street and traffic management, though over time its responsibilities became more extensive.

For the first two decades of its existence, the CUDL was largely used as a common forum and source of technical assistance for infrastructure planning, but not as a strategic scale (Baert interview, 2015). In 1990, however, the decision that a more active strategic role would be taken on was made and an agreement forged that a city regional *président* would be selected from amongst the mayors of the larger constituent communes.

Chosen to lead the CUDL was the mayor of Lille, Pierre Mauroy, who had been prime minister of France during the early 1980s. The selection of Mauroy and the consensus forged by him between the four largest communes of Lille, Roubaix, Tourcoing and Villeneuve d'Ascq took place at the same time as strategic planning and urban regeneration were brought within the competencies of the *Communautés Urbaine* and the *Agence d'Urbanisme de Lille*, the Lille Métropole Urban Planning Agency, was created.

Two points of agreement reinforced the consensus drawn up under Mauroy's leadership, both of which were based on the social and economic disparities that had begun to characterise the region

since the decline of its traditional industries and the spatially uneven pattern of service sector employment that had replaced these (Colomb, 2007). First, the development of the city region was dependent upon the restoration of a spatial balance of growth and opportunity there, such that the success of Lille and Villeneuve d'Ascq, as those places with greater potential, was dependent upon the improvement in the prospects of Roubaix and Tourcoing, those places with greater social and economic difficulties. Second, it was accepted by those places exhibiting lower prospects for growth that the success of the city region required that Lille functioned as a strong central city and primary location for investment (Hall, 2014).

In addition to the importance of the coalition was the strategic vision that was articulated by Pierre Mauroy as the leader of the CUDL, to place Lille on the European stage and the desire to pool resources from across the metropolitan region in order to do this, first by forging a political consensus and then by pooling stakeholder interests from across civic society. This was achieved through the creation of the *Comité du Grand Lille* – a gathering of business interests from across the city region, the *Conseil de Développement du Grand Lille* – an advisory board drawn from across civic society, the failed bid for the Olympic Games of 2004 and the successful 'plan B' of bidding for the European Capital of Culture of the same year.

The establishment of a grouping of local government areas in the urban region surrounding Lille was thus the result of central government action to agglomerate small-scale local government areas into larger partnership bodies. The metropolitan authority created by central government is an inter-communal cooperative body with investment responsibilities transferred upwards from its constituent communes (Colomb, 2007), rather than a singular elected tier of government with accompanying roles and responsibilities. As a consequence, for the CUDL to perform successfully in the interests of the city region, a coalition had to be formed among its constituent communes. While the central government-created *Communautés Urbaine* provided a forum from which such a coalition could emerge, this precondition had to be accompanied by agreement among the coalition members as to how the pooled resources of the coalition would be distributed.

One way of thinking about the integrity of a 'grand coalition' such as the one that underpins the operation of the Lille metropolitan area is the idea from game theory of 'superadditivity': the notion that coalition stability is dependent upon those within the coalition recognising that their interests are best served as part of the group, incentivising collective over individual action. The Shapley value, introduced in section three, would be one way of exploring this issue further. The Shapley value postulates that the distribution of an outcome owing to a coalition effort is an efficient outcome in relation to how the coalition's total resources are being divided; that it is symmetrical, in that players making equal contributions receive equal dividends; that 'null players', or those making no marginal contribution, receive no payoff; and that the value is additive in the space of all games, meaning that the values produced in different games can be combined in a linear way (Winter, 2002).

While the fair distribution of value among the members of a real world development coalition may not feasibly be computable the axioms against which the Shapley value is measured may be used as guidelines in reaching an understanding of what a fair distribution owing to a coalition might be. For instance, in the example of Lille it may be the case that the marginal contribution of the city of Lille itself to the economic success of the city region is greater than that of the smaller settlements within the metro area and that this should be reflected in the relative payoffs to each. Yet, while Lille received major investments such as Euralille over the course of the coalition's operation some interviewees argued that the allocation of the metropolitan authority's resources to the economically lagging parts of the city region has exceeded what would be proportionate to their marginal contribution to the city region's economic success (Baert interview, 2015; Paris interview,

2015). The potential contravention of what would count as 'fair shares' under the definition of the Shapley value contains a qualitative implication: some other rationale may have prompted the spatial management of development; perhaps a form of altruism expressed as a spatially redistributive impulse. More sustained research on the dynamics of coalitions in planning and how coalition-stability and corresponding reward structures are determined would be welcome.

In response to the challenges facing the city region, and in accordance with the foundations of the coalition outlined already, two forms of planning intervention were used. First, the implementation of major urban development schemes that involved the upfront provision of public goods as a precondition for private investment. These schemes were most commonly implemented in Lille as the site most amenable to private investment. Second, the use of urban regeneration and renewal schemes that were most commonly implemented in the lagging parts of the city region. This agenda was formally agreed by the mayors of the communes that made up the CUDL (Le Gàles and Mawson, 1995). The CUDL's well-defined aims and competencies combined with this agreement meant that common projects had to be developed in order to access CUDL funds, further reinforcing the stability of the coalition (Baert interview, 2015).

Major urban schemes had already been undertaken in the Lille-Roubaix-Tourcoing conurbation with the aid of the *Communauté Urbaine*, most notably the planning and construction of the new town of Villeneuve d'Ascq, the creation of a new university site there, and most significantly the development in the 1980s of an automated, unstaffed metro system to complement the existing tramlines. The hypothecated *Versement Transport* tax on employers was a significant source of funding for this (Colomb, 2007), demonstrating an inclination on the part of the *Communauté Urbaine*, as well as central government, who had created the tax, to set the 'rules of the game' in such a way that private sector funds could be invested in public goods. The planning of the extension of the metro to Roubaix and Tourcoing was one of the first actions of the new consensus-driven coalition in the CUDL, its linking of the deprived settlements with the more prosperous centre of the city region designed to be symbolic of the new concord.

The proposal for a second mainline station in Lille to serve high speed trains had been in place since the early 1970s before France's *Trains à Grande Vitesse* (TGV) had come into being. Upon the announcement of the Channel Tunnel rail link in 1986 Pierre Mauroy lobbied successfully for the selection of Lille as the location for a high speed rail interchange backed by a range of local political, business and civic interests (Hall, 2014). Having been considered a peripheral border location within France since the decline of its industrial base, the siting of a high speed rail station in Lille served to note that it is anything but peripheral in Europe, lying at the heart of the economic and political centre between London, Paris and Brussels (Fraser and Baert, 2003).

On the back of the securing of a high speed rail station a plan was conceived in 1990 for an associated office and retail development that would provide a gateway to Lille from this new point of entry to the city. Euralille is a flagship development incorporating a convention centre, hotel, business school, student halls of residence and a park alongside offices and a shopping centre. As a significant expansion of the office market in Lille it has been judged a success being 95% full by 2001 (Colomb, 2007). An expansion of Euralille, known as Euralille 2, has recently been added further growing the commercial centre of Lille as well as adding a range of cultural, civic and residential uses.

Under the leadership of Martine Aubry, the Socialist Party politician who succeeded Pierre Mauroy both as mayor of Lille and as leader of the LMCU, the strategic vision of the city region turned towards a broader economic restructuring, though the use of major urban schemes remained a part of this. The strategy, set out in the LCMU's *Schéma Directeur*, or metropolitan spatial plan, involved

the creation of seven nodes of economic development located across the city region in a spatially balanced fashion. Among these are: Euralille, in the centre of Lille; Eurasanté, a centre for biomedical research firms located on the university hospital site in the south of Lille; Europtéléport, an information technology hub situated in Roubaix; Euratechnologies, a centre for e-commerce in the west of the city region; and L'Union, for the development of innovations in the textile industry, on the border of Roubaix and Tourcoing.

Softer policies have also played a role in the development of the city region, particularly in the shape of the cultural policy that resulted in the successful bid for the 2004 European Capital of Culture that helped to build a platform for a coalition of civic as well as political action (Colomb, 2007). Cultural policies have been aimed at addressing social and economic challenges attracting knowledge workers through a strategy of place marketing and re-branding as well as attempting to address social cohesion (Goetzke interview, 2015).

The evolution of coalition dynamics over time prompt us to revisit the matter of the distribution of 'fair shares' within the coalition. As noted in section three, where a coalition's total value is deliberately not distributed among its members according to each one's marginal contribution to the achievement of that value, the concept of 'transferable utility' can be used to explain the settlement. In such circumstances the given distribution is determined either following a different interpretation of 'fairness' or as a mechanism for persuading players into forming a coalition. For the former, altruistic motives may be at play or a form of social contract or Rawlsian justice may be used in which inequality is addressed through cooperative action (Rawls, 1971). In the latter instance an accord is reached that redistributes resources between coalition members with the aim of fostering stability within the coalition. This is reliant upon a shared understanding that the continued existence of the coalition is of sufficient worth to its members as to make a given redistribution of resources tenable.

As the longevity of the coalition progressed and the international standing of the city region advanced interviewees report that the distribution of development, which had initially focussed on the city of Lille, had to be revisited in order to maintain the stability of the coalition. This was done through the spatial balance of investments undertaken under Martine Aubry's leadership of the metropolitan authority. During this phase of the coalition's operation a balance was struck between the previous focus on Lille itself and an expansion of this to encompass a wider set of investment priorities.

The continuing stability of the coalition relates directly to the future distribution of its shared resources. This requires that a shared understanding is reached as to what particular distribution would best serve its aims under the conditions prevalent at each given point in the coalition's lifespan. The settlement on which the coalition is based and from where it receives its stability and strength must be dynamic, adjusting to changing internal patterns of growth and change as well as to external understandings of regional development.

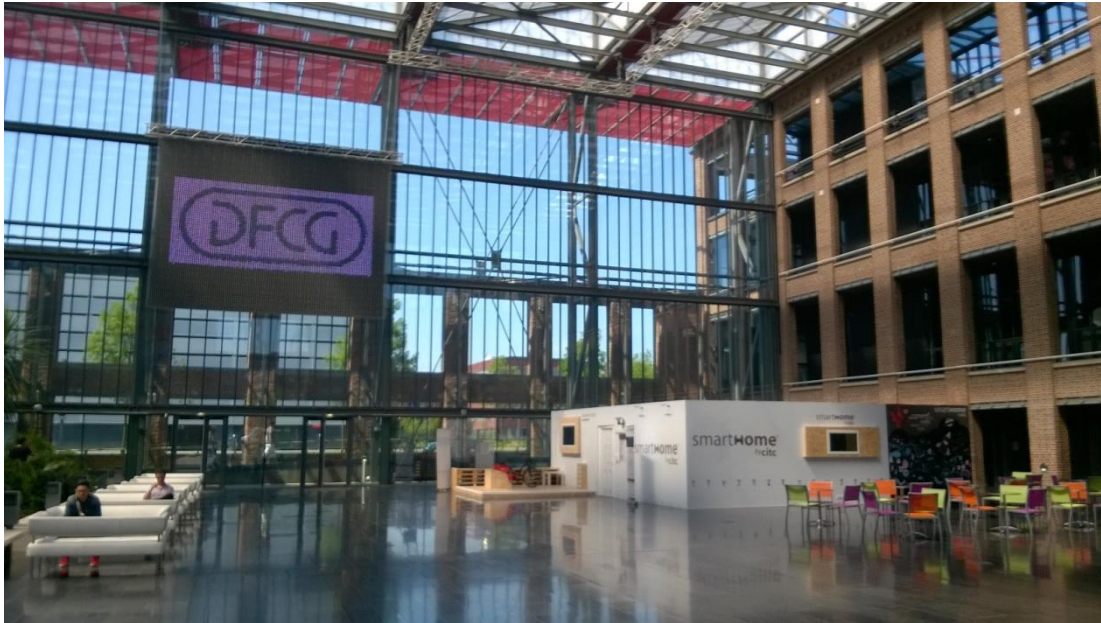


Figure 4: Euratechnologies, one of the series of economic development nodes initiated by the metropolitan authority during the 2000s under the leadership of Martine Aubry. Source: Author's own.

An additional factor affecting the success of the coalition is that of leadership. While the framework for cooperation, by which we have described the metropolitan authority, was imposed from above, this was not a prescriptive model for cooperation, from which a certain distribution of resources could be arrived at. Consequently, once the coalition was formed its members were left to agree through their own interactions how this might be reached. Game theory posits that for a coalition to form and maintain stability it may sometimes be necessary for it to comprise some strong-willed members whose dominance ensures that other coalition members maintain agreements and coordinate their strategies in order to raise the value of the coalition as a whole (McCain, 2009). These strong-willed individuals can act as leaders, holding the coalition together in the face of potential disruption.

In Lille, the presence of two consecutive strong mayors, Pierre Mauroy and Martine Aubry, who combined this role with being leader of the metropolitan authority, is seen to be decisive in this respect. The influence of Mauroy in particular is felt to be pervasive, his political cachet as a former prime minister forming a powerful influence both in terms of credibility in presenting the city region to higher tiers of government, as well as on the European stage, and of his status among his coalition partners. The presence of strong leadership within the coalition – provided in this political context through a mayoral office – was seen by interviewees as essential to ensuring the longer-term security and continuity of planning policy in the Lille metropolitan area (Baert interview, 2015; Paris interview, 2015).

Planning and development tools and instruments

As well as being dependent upon the coalition of political actors at the city regional scale, the development of this series of major urban projects relied on the use of a range of tools and instruments for planning and development that sought to integrate public and private finance and expertise in order to solve collective action problems and create public goods in a post-industrial region where urban regeneration was a priority in most areas.

The basis for the spatial development of the city region was codified in the *Schéma Directeur*, which since 2000 has been gradually replaced by the SCoT (*Schéma de Cohérence Territoriale*). These documents define development guidelines, broad land use patterns and the location of major infrastructure and were prepared at a variable scale but by a minimum of two inter-communal areas, or *Établissement public de coopération intercommunale* (EPCI), of which the *Communauté Urbaine* is one sort. The SCoT is the framework document for metropolitan scale policies and must be adhered to by local plans, the *Plans Locaux d'Urbanisme* (PLU) that are prepared at commune or inter-communal level. The PLU define detailed land uses, building restrictions and urban regeneration options. They are legally binding and are used as the basis for development control.

In the Lille-Roubaix-Tourcoing conurbation, the PLU is the responsibility of the metropolitan authority, following central government pressure to move towards inter-communal production of PLUs, which have in the past been prepared at commune level (Hamlet interview, 2015). The PLU, as a legally binding land use plan, is a restrictive document, though it can be adapted where there is a public interest in a proposed change, whether the proposal is a public or private project. The ability of the PLU to evolve is seen as being necessary to ensure the political acceptability of the document at the metropolitan scale (Hamlet interview, 2015).

While in the past negotiations on such matters as minimum levels of affordable housing and housing unit size took place on a case-by-case basis, the PLU can now set requirements for these which cannot be negotiated, a move which is regarded as having helped to reduce speculative investments. Similarly, retail developers may be asked how their proposals reflect the ambition of the PLU to reserve some space in a scheme for smaller retail outlets such as bakeries, for instance through plot size or the pricing of rents (Goetzke interview, 2015).

This use of strong regulations to dictate the form taken by development might be understood as discouraging private investment. However, when used judiciously in areas where demand to invest is strong there is evidence to suggest that the metropolitan authority has used this regulatory power to drive up standards.

Where it is in the interests of the metropolitan authority, though, or where the payoff to private sector developers is not deemed to be sufficient to facilitate investment, the strong regulatory stance of the PLU can be adapted. One example of this is that land that is the object of a development proposal backed by a public-private partnership can be brought outside of the PLU's regulatory framework. This allows for negotiations on regulations such as building heights to be taken outside of the standard PLU restrictions. For instance, in the housing component of the Euralille 2 development the normal 21 metre maximum residential building height has been raised to 37 metres (Goetzke interview, 2015).

For interviewees the metropolitan authority was viewed as performing an essential coordinating role between the multiplicity of individual communes and the development industry (Hamlet interview, 2015; Goetzke, 2015). The metropolitan authority's experience of major projects and public private partnerships as well as its perceived authority in comparison to the communes were said to be important considerations in this regard.

In addition to land use plans and regulations there are also instruments that can be used for public sector-led urban development projects. The Euralille development was established as a company, using the *Société d'Economie Mixte* (SEM) model, with the CUDL as the lead partner. The SEM turns on the incorporation of a public-private company that raises private finance but is a public sector managed entity.

Through the SEM model the public sector can make the first move in order to stimulate private investment that might otherwise not be forthcoming. The metropolitan authority frequently acts in this capacity as a way of encouraging sites towards development, especially in the case of difficult to develop land such as brownfield sites that require remediation. The assumption of risk in cases of the scale of Euralille is significant, however, as was the case during the crash in commercial rents of the early 1990s when the long term future of Euralille was in jeopardy. Here again the value of local fiscal autonomy is reinforced as it was the metropolitan authority's capacity to refinance the project that meant it was able to withstand what, in retrospect, can be seen to be a short term adjustment in the business climate (Paris interview, 2015).

Following a ruling by the Court of Justice of the European Union the SEM model was criticised for being in violation of the principles of transparent and competitive tendering of public procurement. In response, the French state formulated a new model of development company, the *Société Publique Mixte* (SPL), which uses only public funds and thus avoids the need to engage in competitive tendering as a way of maintaining public control over urban development. The SPL model entails the public sector taking on a greater degree of risk than the SEM model as all finance for the SPL is from public sources.

Smaller projects have tended to use the *Zone d'Aménagement Concertée* (ZAC) model of development, in which planning permission is sold to developers either with infrastructure costs attached, where demand to invest is high, or with an upfront public investment in infrastructure which can later be recouped upon the granting of planning permission, where demand is low. The ZAC model allows the public sector to act as the first mover in the development process and to orchestrate development in order to prioritise community aims. Interviewees report that it has been used effectively at a site-specific scale where land holdings are in multiple ownership (Baert interview, 2015).

The ZAC is a phased model that typically allows for limited public sector deficits over the first two-to-three years in order to finance site assembly as a precursor to wholesale redevelopment. Following this period of land consolidation the model is predicated on the sale of development rights in year four and debt repayment from the fifth year. This timetable combined with the maintenance of the link between infrastructure costs and private investment ensures that the level of risk taken on by the public sector is to some extent limited.

Conclusion

Probably the most significant achievements of the metropolitan authority of Lille have been the creation of consensus across the city regional governance structure; the creation of a political office, the city-regional president, that can animate this coalition; and the assemblage of different sources of funding into a single coherent metropolitan strategy (Colomb, 2007).

Important in the functioning of the metropolitan authority for the Lille-Roubaix-Tourcoing conurbation is the context of early cooperation efforts. The coalition of interests and actors behind the *Communauté Urbaine* have comprised that agency, in its various forms, since the 1960s. In the language of game theory the stability of this coalition has provided a structuring agency that has established long term continuity for the development of a metropolitan area made up of 83 local authorities. Perhaps the closest comparator to this coalition arrangement present in the UK is the self-organised system of city regional governance in Greater Manchester where the Association of Greater Manchester Authorities (AGMA) have provided a similar long term form of coordinated activity but, importantly, without the same kind of devolved decision making and formal fiscal autonomy present in Greater Lille.

In Lille, where greater control over spending for the full metro area exists, the establishment of a stable coalition was incumbent upon payoffs to each 'player' or coalition stakeholder being agreed prior to strategic investment decisions being taken. Thus the major developments of Euralille and the high speed rail station were located in Lille. However the city of Lille would have been unable to access the funds and powers available to the wider metropolitan authority without the agreement of the other major urban centres which in turn received payoffs in the form of subsequent regeneration investments sufficient to make their involvement worthwhile.

The essential precondition for the formation of the 'grand coalition' of actors that make up the metropolitan authority is that the relative payoffs for each actor are 'superadditive'. That is to say that each actor receives more from being a part of the coalition than they could otherwise have achieved by acting alone. Providing that this rule remains true, the grand coalition is likely to remain in place with negotiation limited to the precise division of the value accruing to the grand coalition among its members (McCain, 2009).

An additional lesson that may be learnt from Lille is that political homogeneity is not necessarily essential to encourage coalition formation. Some of the city region's most significant developments occurred under the presidency of Mauroy, a left wing politician, supported by a conservative deputy. This adds weight to the notion that coalitions are not necessarily dependent upon the presence of a shared ethos and points to either the role of trust between heterogeneous actors or the importance of the payoff / outcome structure of the coalition.

General lessons that can be drawn from the Lille case include:

- A coalition of political entities can self-assemble where the historic boundary settlement of local government does not reflect modern functional economic geography. A coalition of interests assembled in this way need not be inhibited by political allegiances and historical inter-city competition: so long as the condition of superadditivity exists – that coalition members believe they have more to gain from being part of the coalition than acting alone. Moreover, this form of intra-metropolitan cooperation is essential to the development of coordinated development that cuts across administrative boundaries. In the case of those few examples where there is formal city regional governance – such as Hamburg Metro Region or the London Mayorality – the degree of coordination necessary to so many large scale planning interventions can be guaranteed. In Lille – as in the English city with which it shares so many historic similarities, Manchester – it has emerged as a locally devised response to fragmentation in the local polity.
- The translation of shared interests into a formal agreement, as well as the stipulation that access to common funds is dependent upon the development of common projects, are useful preconditions for stable coalition.
- Strategic vision that is ambitious yet inclusive can help support the re-engagement of a lagging region with the global economy without abandoning its less prosperous parts.
- Replacing case-by-case negotiations over planning requirements such as affordable housing provision with a plan-led prescriptive approach means that the planning authority is in a position of strength in terms of being able to use threat strategies to ensure compliance when seeking to achieve its social aims.
- Public-private partnerships can be used to nudge problematic brownfield sites towards development using public investments to facilitate the entry of private investors at subsequent stages.

- Under a model, such as that present in Greater Lille, that uses existing organs of the public sector to animate development, a balance must be sought between guaranteeing sufficient public investment to commence development and ensuring that developers pay a fair contribution towards public goods provision. The strength of the mayor's political office may raise the prospects of this kind of decision making.

10. The Netherlands: using land readjustment as a tool for the development of land in multiple ownership

Summary

Land readjustment in the Netherlands is used to initiate development of complicated sites which are often held in multiple ownership. It provides a less intrusive and cumbersome alternative to top-down land assembly models with only temporary transfers of development rights. The ultimate outcomes of land-readjustment are similar to other forms of land assembly, including the ability to deliver sizeable infrastructure projects, increase the density of development, or plan developments for the achievement of social or economic goals, with uplifts in land values being captured to cover the costs of investment.

Land-readjustment as employed in the Netherlands focuses strongly on coalition building between private land holders who recognise that the temporary collective pooling of development rights can lead to long-term individual benefits that would significantly outweigh any garnered from acting in isolation. Risk is reduced for the public sector without the need to engage in resource intensive compulsory-purchase procedures, and the very processes involved in bringing private land-owners into coalition often creates healthy coalitions which are able to develop shared aspirations and ensure that the development closely reflects the interests of the stakeholders.

Background

Over the course of the past ten years planning in the Netherlands has undergone a programme of fundamental reform. The public land development model favoured in the Netherlands since the Second World War has to a large extent been phased out and replaced by a new suite of policies designed to support brownfield development using a new set of instruments and policy tools.

Context for planning and development

The Dutch VINEX (*Vierde Nota Ruimtelijke Ordening Extra*, which translates as Fourth Memorandum Spatial Planning Extra) policy briefing note of 1988 responded to increasing demand for housing by setting out the case for a large scale national house building programme. Locations were identified for new housing on brownfield sites, amounting to between 5,000 and 25,000 units (van der Krabben and Heurkens, 2015), such as the IJburg area of former dockland close to Amsterdam. Most, however, were situated on greenfield land at the urban-rural fringe taking the form of urban extensions with public transport links to integrate them into neighbouring urban settlements.

The VINEX building programme was to be accomplished using the Dutch urban development programme known as public land development which came into being after World War Two as a way of coping with the post-war housing shortage. The public land development model is atypical in an international context, being what van der Krabben and Jacobs (2013) refer to as a 'public comprehensive top-down model'. Under this approach the public sector – usually the municipality, though the provinces and the national government also had the legal right to use the approach –

took a major role in initiating urban development. The system worked by Dutch municipalities purchasing agricultural land at the fringes of cities, preparing it for house building by installing roads and public infrastructure then parcelling the land into plots and selling these to the private sector with clearly specified development rights.

This Dutch public land development model has been hotly debated within the Netherlands; particularly the question of whether the state should bear so much of the risk and responsibility associated with undertaking so much pre-development work (van der Krabben interview, 2015). Nevertheless the model has been at the heart of Dutch planning for several decades and has underpinned the production of some developments that have garnered international attention for design, build quality and environmental sustainability.

Dutch backing for the model over several decades following World War Two can largely be explained by four factors. First it allows municipalities to achieve clearly defined planning goals, including the design specification and build quality of the developments they envisage, without recourse to the regulation of a proposal that originates with a private developer. This is particularly relevant in the case of affordable housing provision. The prevailing Dutch legal context for many years was such that municipalities were not able to specify a proportion of affordable housing within an area zoned for housing but were able to circumvent this restriction by allocating part of their own land for affordable housing. Second, public land development allows for the recovery of infrastructure costs associated with the development. While being unable to enforce the payment of developer contributions towards public works associated with urban development municipalities were able to recover these costs by capitalising their first mover advantage and incorporating the costs into the final plot prices. Third, by the same mechanism the uplift in development values that occurs as a result of the change of use together with the installation of public works – the ‘unearned increment’ – can be captured in the final sale price of the plots. The value captured was not restricted for use in future urban development and could be used for general municipality funds. This proved especially attractive to Dutch municipalities which, like their counterparts in the UK, have limited tax-raising powers. Fourth, the public *Bank Nederlandse Gemeenten* offered low interest loans to municipalities that provided a financial underpinning for public land development (van der Krabben and Jacobs, 2013).

For private developers the model was also attractive, chiefly because it enabled them to avoid the burden of risk involved in land acquisition that would necessitate a change of use to permit development. While Dutch developers have never been restricted from acquiring development land only rarely did developers choose to both buy and develop land, preferring to act solely as house builders (van der Krabben interview, 2015). The behavioural norms of this Dutch business model meant that developers in the Netherlands were so accustomed to acquiring sites that had planning permission attached and that were already fully serviced with public infrastructure, that any reform of this approach would demand a significant overhaul of the behavioural conditions under which the Dutch development industry had previously worked.



Figure 5: typical VINEX housing in Waalsprong, Nijmegen. Sources: Author's own.

During the VINEX programme the public land development model ran into difficulties. While the basis of the model lay in the ability of municipalities to purchase land at the rural-urban fringe at close to agricultural prices the announcement of the VINEX locations prior to the public purchase of land allowed private developers to step in and buy land ahead of the municipalities, confident that planning permission would be granted for these sites subsequently. While it might be expected that developers would use their position to either fully develop the land without state involvement or to sell the land to the municipalities at an inflated value, however, interviewees suggest that, so accustomed had developers become to the state acting as the first mover that in many cases they were buying land in areas where consent was to be given simply to obtain the right to develop. Research shows that what would have been speculative land acquisition under other planning systems was not always capitalised on by Dutch developers. Priemus and Louw (2000) (referenced in Priemus and Louw, 2003) note that in many instances developers either bought land in cooperation with a local authority or sold their land to a local authority at a loss, providing that an exclusive option to build was granted.



Figure 6: Housing in Waalsprong, Nijmegen. This VINEX location was due to have been completed by 2015 but is presently less than a third complete. Source: author's own.

Despite this form of private-public cooperation the long term future of the model was called into question by the 2008 financial crisis. While private developers had sold land to municipalities with an exclusive option to build attached to the sale the option was not compulsorily binding. As a result, municipalities found themselves with ownership of significant quantities of land purchased from developers on the basis of debt finance but over which the associated developers had very little appetite to exercise their option. Municipalities across the Netherlands have found themselves millions – in many cases hundreds of millions – of Euros in debt since the beginning of the crisis, wiping out value captured from development built up over the preceding two decades and in some cases pushing them close to bankruptcy (Kuijer interview, 2015).

The decline of the public land development model and the adoption of new models of development

The vulnerability of the previous Dutch planning model to external financial shocks prompted the Dutch ministry of finance to put an end to the system but this was objected to by the ministry of infrastructure and environment on the basis that the model had achieved much in the period prior to the financial crisis and had become a normalised aspect of the Dutch development industry. Following protracted negotiation a change in legislation has retained the option for municipalities to use public land development but only once all other options have been ruled out (Kuijer interview, 2015).

A further reason for the declining use of the model is that public infrastructure costs including some or all costs associated with public works indirect to development (for instance, a ring road or public transport enhancement) has been guaranteed under Dutch law since 2008. This is subject to the development's profitability such that costs that would render a development unprofitable are not recoverable (Van der Krabben and Needham, 2008: 653; VROM, 2007). The same law allows municipalities to set minimum levels of affordable housing obviating the need for them to use public land development as a means to secure this.

Value generated above that necessary to recover costs cannot be captured by the state under the same law. While for large greenfield sites surplus value capture was a significant source of income for many municipalities the scale of development on brownfield sites in the Netherlands is such that the potential for value capture is often minimal. Alongside this the longstanding debate as to the distributive justice questions surrounding the 'unearned increment', notable in the Netherlands as in the UK, is seen as being long dormant (van der Krabben interview, 2015; Kuijer interview, 2015).

Despite the wax and wane of Dutch public land development the longer term implications of the policy live on. Rising demand across much of the country as the effects of the financial crisis abate has shifted the debate somewhat although many municipalities are still in possession of significant stocks of undeveloped land in VINEX locations. In the case of Nijmegen the VINEX site where 13,000 houses were scheduled to have been built by 2015 boasts only 4,000 completions by this date. Interviewees speculate that it may take a further 20 years before the development is finished (van der Krabben interview, 2015). Moreover, there is evidence that the larger private developers strongly favour the public land development model because it shifts the risk associated with land acquisition onto the municipalities and provides a steady and reliable supply of serviced land for house building. Interviewees report that it has proven very difficult to encourage a change in the behavioural expectations of the Dutch house building industry (van der Krabben interview, 2015).

The decline of public land development as a way of producing new developments has created the necessity for a new model to effect wholesale urban development in the Netherlands. While a single universal model to replace public land development is unlikely to emerge a variety of policy tools, of which urban land readjustment is one, may go some way to meeting this challenge.

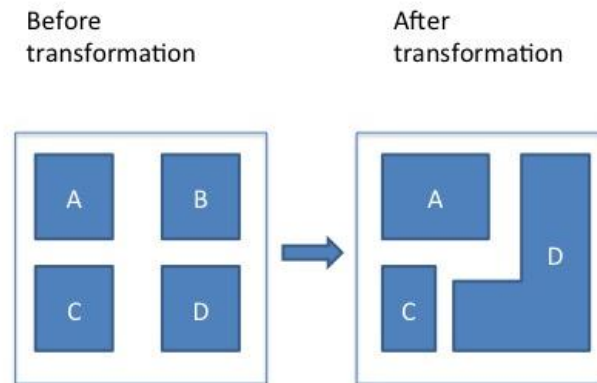
In sum the behavioural traits of the Dutch development process have undergone a fundamental change. Municipalities' confidence in the public land development model has been eroded, leaving them far more risk averse. Having historically borne all the risk of underwriting new development the Dutch state are keen to explore new models of orchestrating the development process that may in time result in a restructuring of the development industry in the Netherlands. This may include the wider use of small scale, focused interventions such as land readjustment policies between limited numbers of land holders and a more prominent role for smaller regional developers who may be more suited to the development of small-scale infill sites (van der Krabben interview, 2015).

From this context has emerged a much greater appetite in the Dutch public sector to share the risks associated with new development more evenly with the private sector through a much wider use of land readjustment policies. While this approach is typically used for the redevelopment of brownfield sites, urban land readjustment first came to be discussed within present planning debates in the Netherlands in the context of the VINEX programme. Where large VINEX locations had only been partially built by the point at which housing demand dropped at the beginning of the financial crisis, those private developers who had bought an option to build on plots far from the developed section of the VINEX location found themselves at a severe disadvantage. A possible solution to this problem explored by the Dutch government was to reallocate and bundle together those plots that were dispersed across a large VINEX location closer together to make a more compact overall development. Urban land readjustment was proposed as a possible mechanism to achieve this consolidation.

Urban land readjustment

Urban land readjustment is a model of urban development that has been used in a range of international contexts including Australia, where it is known as 'land pooling', Israel, Germany, France, Spain, Japan and Korea and has been advocated by the World Bank since the mid-1970s

(Doebele, 2007). In the UK, Adams et al (2001) draw on urban land readjustment in proposing the 'urban partnership zone' as a way of tackling the barrier sometimes posed to redevelopment by contiguous land holdings held in multiple ownership. Urban land readjustment has been valued for its ability to build the recovery of infrastructure costs into the development process thus providing an automatic way of capturing the uplift in land values associated with the granting of planning consent, obviating the need for any form of *ex post* development levy.



The core principle of land readjustment is that it enables the consolidation of adjacent plots into a new configuration more amenable to development. In a typical model of urban land readjustment, private property rights are temporarily transferred to a public development agency that proceeds to assemble and re-parcel the site – often into a greater number of smaller units – before installing infrastructure and thus raising the value of each plot. Property rights are subsequently returned to the original landowners. However, the size of plot returned to landowners is often reduced as the process turns on the creation of new plots for sale. The upfront costs incurred by the state (through the public development agency) are designed to be recovered by the sale of the new plots created by the process. Compensation to the original land owners, whose cooperation was essential to the process as a whole, comes through the enhancements to their land holdings resulting from the creation of fully serviced sites with planning consent (van der Krabben and Needham, 2008). This form of urban land readjustment was used in rebuilding programmes in Japan following the 1923 Tokyo earthquake and the heavy bombing of World War Two (Doebele, 2007). Variations on the model include scenarios in which no new plots are created, all land owners cover the costs of the redevelopment from the subsequent anticipated increase in the value of their plots and where public use may also be incorporated with private holdings in the allocation and re-allocation of holdings (van der Krabben and Needham, 2008).

More recently, the value of land readjustment has been seen more in its ability to address complex instances of land assembly for redevelopment (Needham, 2007). From this perspective, land readjustment is a policy tool used to address situations where 'the boundaries of the rights to land ownership or land use may impede the desired use of the area as a whole' (Needham, 2007: 115). While the ability of land readjustment to capture increases in land and property values following development is useful in greenfield sites or in post-war reconstruction where development must be financed with limited public expenditure, it is the capacity of the policy to facilitate development in brownfield sites held in multiple ownership that has proven to be especially attractive in the Netherlands.

Van der Krabben and Needham (2008) propose urban land readjustment as an appropriate tool in circumstances where:

- An urban redevelopment project requires a change of layout (re-parcelling);
- A proposed redevelopment site has fragmented ownership;
- A redevelopment, involving re-parcelling, has the endorsement of a number of landowners who cannot each act alone;
- A redevelopment is such that no single public or private agency, nor a public-private partnership, is willing to acquire the site in total.

Urban land readjustment addresses four important and often experienced impediments to development that can be illuminated using behavioural economics. First, urban land readjustment may be effective in tackling the first mover problem. In circumstances where coherent sites are held in multiple ownership or where topography or other factors militate against individual property enhancements land readjustment allows for collective reconfiguration of a layout that would be advantageous to all owners. Similarly, where a redevelopment project is proposed for an area in multiple ownership development activity may be hindered by the unwillingness of the multiplicity of owners to act in concert. As noted in section three where development is stalled due to competing interests, as exemplified by fragmented land ownership, land readjustment may provide a mechanism to align otherwise competing interests towards a common interest.

To achieve this one party is required to ‘nudge’ the market into action thereby reducing the mutual uncertainty between actors in the development process that has resulted in stasis. In the case of urban land readjustment the common institution that could provide this ‘nudge’ might, in the least interventionist application of the policy tool be legislation that enforces property rights throughout the land readjustment process. This would mean that landowners engaging in land readjustment would have the certainty that, should any other party withdraw from the redevelopment the process would still continue to its end with the interests of all participating landowners protected by law. In a more interventionist version of urban land readjustment a public agency might be created that would temporarily take possession of private property rights and take responsibility for the redevelopment process.

Second, urban land readjustment partly addresses the free rider problem. Landowners are typically permitted to free ride on public investment in neighbouring plots where no tax is levied on betterment value. By necessitating the participation of all landowners within an area subject to redevelopment urban land readjustment systemically incorporates and capitalises the free rider problem.

Third, urban land readjustment turns on sharing the risk attached to a development project among all parties involved. This is in stark contrast to the public land development model in which risk is overwhelmingly borne by local government.

Fourth, urban land readjustment facilitates land assembly by incentivising cooperative action. Land assembly is a crucial and potentially complex part of the development process, particularly so when land is held in multiple ownership. The amalgamation of multiple land holdings is a task that is usually beyond the scope of a single private developer while the use of compulsory purchase by a public agency is time consuming, costly, and, in some cases, can run counter to resident aspirations. Voluntary land readjustment offers an alternative in which landowners form a coalition into which they pool their property rights for the duration of the redevelopment, receiving them back again upon its completion (Needham, 2007).

The stability of the land readjustment coalition is explained by the concept of ‘superadditivity’, used in cooperative game theory to describe the understanding among coalition members that they stand to benefit more from being inside the coalition than from acting alone. Maintaining the long run

stability of such a coalition may still require, or be made more likely by, a legal context that assures the maintenance of property rights throughout the land readjustment process and which can guarantee that the understanding of 'fair' distribution that brought the coalition together is maintained. The Shapley value, discussed in section three, is used in game theory to determine the 'fair' distribution of the surplus value created in a coalition within a cooperative game by calculating the marginal contribution of each player to the success of the grand coalition. In land readjustment a 'fair' distribution of surplus is generally arrived at by similar means as each landowner gains a share of surplus value that is proportionate to their initial landholdings and investment.

Exploring the application of urban land readjustment policy in the Netherlands

Land readjustment has been used in rural areas in the Netherlands since 1924 as a way of raising agricultural productivity by making more efficient use of farming land (Needham, 2007). Urban land readjustment was used briefly in the Netherlands after World War Two during the reconstruction of Rotterdam which, after being heavily bombed and leaving many landowners dead or untraceable, was rebuilt into its modern grid plan using land readjustment (Kuijer interview, 2015). It was not until the early 2000s that urban land readjustment came to be discussed once more as a solution to brownfield development with the establishment of a government commission in 2010 charged with exploring the introduction of urban land readjustment into Dutch land use planning.

To explore the behavioural economics of how land readjustment might work in practice a series of economic experiments were run by the Department of Geography, Planning and Environment at the Radboud University in Nijmegen. Using a 'land readjustment game' (premised on some common principles from game theory) a laboratory environment allowed researchers to explore the behavioural aspects of how the policy might work in practice and how market participants might adapt to the use of land readjustment as a routine part of the Dutch development industry's operation.

Following their laboratory experimentation, researchers at Radboud University sought to extend their research into a real world setting. A proposed redevelopment of land adjacent to Nijmegen's Central Station was selected as a test case in which to explore in a non-laboratory setting the viability of an alternative development model in which the risks associated with being first mover could be shared between the state and a coalition of developers. The proposal was to use the parameters offered by this real world example and to transpose these onto an inconsequential game scenario to be played, as before, by urban development experts, much as had been done already in the laboratory only this time with real data and using the preferences of real landowners. Following the completion of the game, the findings were presented to the real landowners.

First, landowners within the proposed redevelopment area were interviewed in order to elicit their desires and aversions with regard to potential changes in the configuration of plots and land uses. Following this, urban development experts acted as proxy owners, playing the roles of each of the landowners and modelling their stated preferences using an urban land readjustment game similar to that produced in the earlier laboratory experiments. While the setting was a real world development example, the experts continued to play a game with only hypothetical consequences. The content and outcome of the game are briefly described over the following paragraphs in order to provide an insight into the urban land readjustment process.

The redevelopment was proposed by the municipality of Nijmegen following an investment in the rail station that increased the number of platforms and resulted in the enlargement of a tunnel that runs underneath the station. This prompted the suggestion that the necessity of these works might be used as an opportunity to open up the station entrance in order to improve access to buses, taxis

and bicycles and to provide public realm improvements that might in turn lead to greater footfall and present new opportunities for retail development in the area. Plots in the area subject to the proposed redevelopment were comprised of private housing, social housing owned by a housing association, offices, a furniture shop, land belonging to the municipality and land belonging to ProRail, the company responsible for rail infrastructure in the Netherlands.

The results of the research illustrate a wide range of preferences for how redevelopment might proceed and what corresponding role each landowner may play in this. Land owner objectives ranged from the municipality's desire to improve traffic flows by reconfiguring a major road junction; the housing association's desire to take the opportunity to renew their housing stock; the furniture shop owner's openness to sale; the office owner's wish to develop his site into a conference centre; and ProRail's requirement that its plot adjacent to the tracks, which was made up of a more attractive section close to the station building and a less attractive section at the fringes of the site, be sold only in its entirety rather than it being divided in two. From this list of preferences negotiations commenced among the players that explored possible trade-offs and mutual gains that could lead to some form of mutually agreeable redevelopment.

As a framework to be used to enable the negotiations to proceed a three part agenda was created. First, information was collected about the area including ownership details, loans held on land and properties, and real estate prices taken from the land registry, the municipality and the land owners themselves. Second, a series of visions for the area were devised, translating the preferences of the different landowners that were collected prior to the commencement of the game into possible configurations for redevelopment that each emphasised a different overall vision for the area. Finally, discussions with the proxy owners took place in which they were asked to generate three options for their land.

Ultimately three visions were created. The first focused on improving traffic flows within the area by implementing a double roundabout to replace the road junction, increasing parking and improving access to the tunnel. In this scenario 36% of land changed hands while the change in overall land value was close to zero. The second vision sought to maximise the amount of public space in the area by setting aside the plots adjacent to the tracks owned by ProRail for green space and creating a public space in front of the station entrance. This vision involved 42% of land changing hands and entailed a net loss in overall land values. The third vision aimed to create as much development value as possible by reducing public space and space for parking as well as minimising road engineering. In this scenario 31% of land changed hands, while more landowners benefited and more overall value was created.

The scenarios generated in the game were presented to the real landowners with a positive reception – particularly the range of previously unconsidered options that they represented. Interviewees reported that one of the most significant findings prompted by the research was the legacy of the municipalities' central role as animator of development in the Netherlands. As a result of this informally established behavioural norm, prior to the research the real landowners had only ever contacted the municipality about their plot; none had explored alternative visions for how redevelopment might take place collectively with their neighbours. In the language of behavioural economics the structure of the market illustrates how the old system in which the municipalities were the dominant first movers encouraged a uni-equilibria solution. Adjusting the structure of the market to share this first mover burden illustrated how this move might also prompt a wider range of options for the redevelopment as a whole and create a shared sense of purpose amongst those affected by the redevelopment.

After the completion of the Nijmegen Central Station redevelopment game, the Dutch national government assembled a commission to examine how urban land readjustment might be applied in the Netherlands with a view to legislating for its introduction. The resulting report explored the various ways in which urban land readjustment might work without proposing any single model. The national government introduced its own conditions into the proposed future legislation following which a series of test cases were instigated across the country. These test cases, now totalling around 100, have applied the emerging and evolving Dutch model of urban land readjustment in real world redevelopment projects.

The Dutch model of urban land readjustment

The model of urban land readjustment studied most closely by the commission established by the national government to explore the application of the policy in the Netherlands was the top-down, public sector led approach practiced in Germany and elsewhere (Kuijjer interview, 2015). However the urban land readjustment experiments that have taken place in have been of a bottom-up, private sector led variety, with the state acting only in a facilitation capacity. The reasons for this are a combination of political preference reflecting the liberally inclined makeup of the current Dutch coalition government, and a lack of appetite to facilitate further municipal investment and risk in the years following the financial crisis (Kuijjer interview, 2015; van der Krabben interview, 2015).

The public sector will play a role beyond that of facilitator in instances where social gains can be made, incentivising development by reducing developer contributions to cover public investments. Where urban land readjustment projects generate significant surplus value, deals between municipalities and landowners can be easily arrived at. But in cases where development is hanging in the balance, in which little or no surplus value is generated yet where social gains can be made, public investment may be used to stimulate development into being (Kuijjer interview, 2015).

There may, however, be greater financial involvement from the public sector as the policy progresses. The province-level regional development companies have discussed the co-financing of redevelopment projects on industrial estates using urban land readjustment as a mechanism. Additionally, the public *Bank Nederlandse Gemeenten*, which issues loans to the municipalities and thereby finances public land development has also expressed interest in urban land readjustment and may begin to finance projects using this instrument (van der Krabben interview, 2015).

At the time of writing the initiation of the first test cases has come almost exclusively from individual Dutch municipalities. Anecdotally this appears to be the enduring legacy for municipalities to assume the role of first mover although evidence on this is limited and gaining a fuller impression of how intractable this behavioural norm proves over the longer term would require further research (Kuijjer interview, 2015).

Conclusion

The behavioural changes prompted in local government as a result of policies such as land readjustment encourage municipalities to be more entrepreneurial. From this perspective the same drivers that explain the geography of investment decisions made by the private development industry may have a profound effect on the fundamental aims and objectives that motivate the activities of local or municipal government. The Netherlands is good example of this where there is now a clear incentive to shift attention from urban areas in need of regeneration, which have historically been a priority, to sites in more affluent areas where the potential for stimulating private development activity is greater. Over the coming years it will be essential to explore the degree to which the availability of land readjustment to Dutch municipalities prompts them to gently 'nudge'

development into being in readily viable locations rather than focus on more problematic urban areas where the potential for immediate returns are more limited. The potential disappearance of the practice common in public land development of cross-subsidising loss-making with more profitable housing developments illustrates further this possible shift in the spatial pattern of development. The potential for such an outcome to entrench uneven economic geography will be an important area for further research.

Urban land readjustment has been explored in the Netherlands as a policy tool that may facilitate urban development following the decline in use of the public land development model resulting from the effect on Dutch municipalities following the financial crisis. Given that it was the assumption by municipalities of a sizeable majority of the previous model was predicated on municipalities assuming all of the upfront risk involved in the development process urban land readjustment has become a popular alternative due to the way in which it formally shares the first mover's risk among all affected parties.

General lessons that may be drawn from the example of urban land readjustment in the Netherlands include:

- The pooling of property rights, with guaranteed protection in law, may provide a way of tackling collective action problems, such as the first mover problem.
- The sharing of risk between development actors among whom risk aversion is the dominant behavioural characteristic may be effective in facilitating development.
- While taking only a minimal role in the development process, the public sector may still be able to achieve public goals by using financial incentives to facilitate development that enables these goals to be reached where it might otherwise not occur.
- The fundamental change to the long-established Dutch model of development will almost certainly take time to become normalised. Furthermore this may have a profound effect on the behavioural traits of both the private development industry, which may have to accept a more significant share of the risks associated with initiating development, and, correspondingly, the municipalities where the more entrepreneurial approach demanded by land readjustment may encourage a shift in the geography of investment decisions.

PART THREE

11. Re-imagining planning for the new century

There is increasing evidence that planning can be an important animator of development and can, if provided with an economically active remit, add value to the development process (Watkins, Adams, et al, 2015). International experience would bear out this view that planning can play a significant role in delivering economic growth. The case studies presented in this research share little in terms of context; they are governmentally, socially, economically and environmentally diverse. Nevertheless, despite these differences, each context illustrates the role planning can play in fostering development. The evidence presented here would support the view that planning has helped to deliver positive economic outcomes through delivering higher quality development in cities such as Hamburg, Lille and Nijmegen in a way that would be the envy of almost any British city. By comparison the systems of planning in place in the British Isles have a more limited scope.

Despite the empirical evidence from overseas presented in this report the prescription typically offered by neoclassical critiques of planning in the UK is to limit planning further. The germ of this argument – that diminishing planning’s role will stimulate house building – oversimplifies both the purpose of planning and the house building industry. Even if simply stimulating house building were all planning were concerned with the research in this paper shows that removing the ‘impediment’ of planning may do little to actively stimulate development: quite the reverse, in most continental European contexts planning is charged with effectively acting as a ‘market maker’, an agency specifically tasked with catalysing development. The results are startling. If provided with a clearly defined set of agential powers, adequately resourced and provided with statutory backing, planning can provide the setting to stimulate the behavioural conditions necessary to create high quality development. Overcoming first mover problems, acting as an architect of the coalitions necessary to see development through from inception to completion and overseeing design competitions that result in enviable public realms are all ways in which German, Dutch and French governments have sought to empower, not diminish, planning.

Because of the nature of the environmental assets that planning is charged with administering and the centuries-long landscape altering effects of development, the production of the built environment is one market that clearly requires brokerage services: we need planning to ensure the aims of state, civil and market participants are balanced whilst providing a clearly codified rule book that provides corresponding certainty for each. Planning is probably the *only* way of creating the conditions for a normalised state of ‘business as usual’ – without it development may become less, not more, likely.

Given the particular characteristics of housing as an asset, outlined above, it is proposed that a strong role – a strengthened role from its current position – is warranted for planning. However, this role should be reconsidered from first principles. Planning can provide the necessary preconditions for private investment to be put to best use. This would require a form of planning that intervenes where first mover problems exist through mechanisms such as land assembly and infrastructure investment. It would entail an understanding of planning as a source of market stability, engaging with the development industry while using transparent interventionist processes in tandem to achieve social and environmental aims. Such an effort would require a pragmatism that is keen to engage with and harness the market rather than taking doctrinal positions on an imagined state/market divide.

Policy implications

Supporting locally devised approaches and devolved decision making

In the majority of European cases, including those surveyed in this research, decision making power is devolved. This has allowed the diagnosis of highly contextually specific planning problems and their prescribed solutions to be devised locally. The result is that superficially similar institutions (in nomenclature, for example) may be charged with remarkably different aims, display variegated behavioural traits and secure diverging outcomes. A similar settlement of devolved power is something which could be prioritised by those currently involved in pursuing and delivering greater devolution settlements in the metropolitan regions of England and the devolved nations. The creation of a forum, possibly digitally based, to share best practice in developing locally effective planning instruments could aid policy transfer within and between regions and nations of the UK and would be essential to the stimulation of professional exchange and supporting locally-attuned responses to planning issues. This could also include a more outward facing approach as we have sought to do in this research; looking at international experience to establish areas where policies that have originated overseas might be adapted to a British setting.

Since the General Election of 2015 and the Scottish Independence Referendum, the process of devolution of greater political powers to the various regions and nations of the UK has begun. One of the core functions that a new polity of British city-regions may have is greater control over its ability to be more creative and strategic with pooled resources for urban planning. Ensuring continuity across and between territories with differing jurisdictional authority will be essential if built environment development is not to be disrupted and piecemeal. In light of the findings of this paper we would urge the RTPI to continue to play an active role in the debate on what the future of devolved planning settlements should entail and to support ongoing research on the effects of this potentially variegated approach to the scales at which planning power is vested.

A re-consideration of the use of development agencies

Development agencies offer a persuasive solution to the challenge of integrating public and private interests, especially in the case of large-scale or stalled developments. Research presented in this report has identified the common role development agencies may play in kick-starting and managing development. The Town and Country Planning Association's urging of a reappraisal of the New Towns Act to create development corporations (TCPA, 2015), as well as the Labour Party's Lyons Review (Lyons, 2015) arrive at similar conclusions to those of the current UK Government as to the potential value of incorporated bodies to lead the development process. The findings of this report similarly point to the ways in which our nearest continental neighbours have used development corporations/agencies to guarantee consistency of focus in strategically important developments.

It may be that it is not simply the existence of such bodies that is lacking in the UK legal and policy context but their longevity and financial backing. If so, the realignment of planning towards the widely sanctioned aim of significantly increasing the rate of development of new housing would require a reappraisal of the remit, funding and lifespan of any future generation of British development agencies. For example, the RTPI's recent paper in conjunction with Arup (RTPI-Arup, October 2015), studying the effects of the Government's budget cuts on Local Authorities in the North West of England, has shown how a lack of resources within planning departments diminishes their ability to deliver the kind of positive planning outlined in this paper. It may also be that inherited notions of a stark division between public and private roles in the delivery of new housing be reappraised and adjusted. The evidence reviewed in this study suggests that, from both a quality

and a quantity perspective, new housing may be best delivered by combining public and private sector capacities.

Moving from instrumentalism to strategic planning in area development

While strategic planning has appeared and reappeared on numerous occasions over the course of the post-war era, the form it has taken in the UK has tended to focus on the broad spatial pattern of development (for example across a region) rather than taking a strategic view of the form taken by specific developments. The strategic dimension in area development is constituted by such factors as the use value of the built environment, the resilience of development to shocks (economic, environmental or other) and the role of architecture in raising living standards. Encouraging a behavioural shift, such as that which is currently occurring in aspects of the case study research presented here, from goal-specific regulation to strategic intervention could potentially contribute to addressing these aims.

An acceptance of the peculiarities of housing as an asset class - that it will endure as part of the built environment for many years to come and must guarantee at base an adequate standard of living for both present and subsequent occupants - points to the important shadow effect cast by development. Housing developments are often replete with externality costs. Accounting for these effects would be a desirable way of evaluating development proposals, in contrast to the prevailing focus on exploring a proposal's ability to immediately satisfy current demand. Whole life-cycle costing of constructed assets, which must be taken into account in the preparation of business cases for capital investment for construction projects in the UK public sector (Dorman, 2004), offers one possible tool for understanding the long term cost effectiveness of a project beyond its immediate construction costs. This more strategic and temporally sensitive approach may be a useful starting point in thinking more carefully about the costs and values of new development more widely.

Further research on the implications of local government reform

The aggregate of reforms affecting local government across the UK are likely to have profound behavioural effects, not least the creation of more autonomous and entrepreneurial local authorities in some cases covering city-regional territories much greater in size than the inherited boundary settlement. The research presented in this report points to the dilemmas these increased powers and spheres of influence create. The degree to which the changing landscape of local government in the UK prompts a corresponding change in focus in how development is animated should be a focus for further research.

Of particular note are the implications of a more entrepreneurial form of behaviour in local government on the spatial pattern of development within the area for which they are responsible. Data gathered during the course of this study suggests that, where greater responsibility is lodged with local government for the growth of local economies, there may be a tendency for such growth to be concentrated in areas already attractive to the development industry. In the UK this would represent a *de facto* change in the business model upon which urban regeneration has been premised since the 1970s in which resources have been targeted at areas characterised by deprivation. The consequences of this potential shift in policy for cities should be considered when changes to funding regimes are made.

A review of the university-level education provided on RTPI accredited programmes and the continuing professional development of practicing planners

Do planners have the skills necessary to play a more economically active role in shaping development? Achieving the longer term aim of a cultural shift in the terms under which planning takes place will by necessity begin within the content of higher education. The RTPI's 'Value of Planning' workstream has been a useful starting point from which the profession can review how successfully it engages with economic debates. In this respect, the RTPI should continue to review the degree to which university courses provide planning professionals of the future with sufficient training to appreciate the economic role they will go on to play. As this report has highlighted planning education should provide sufficient modular content to cover aspects of the neoclassical understanding of planning's regulatory function, including the economic value of ecosystem services, as well as the behavioural microeconomics of planning decision making. Moreover the existing system of continuing professional development (CPD) required of/available to existing planning professionals should be scrutinised to establish the degree to which it adequately supports those working as planning professionals. Reviewing planning education in the higher education sector would mirror similar reviews of the curricula offered by planning schools in the counties that comprise the evidence in this paper.

References

Adams, D., Disberry, A., Hutchison, N. and Munjoma, T. (2001) Managing urban land: the case for urban partnership zones. *Regional Studies*, 35: 153-162.

Adams, D. and Tiesdell, S. (2010) Planners as market actors: rethinking state-market relations in land and property development, *Planning Theory and Practice*, 11: 187-207.

Adams, D. and Tiesdell, S. (2013) *Shaping Places: Urban Planning, Design and Development*. London: Routledge.

Adams, D. and Watkins, C. (2014) *The Value of Planning*, RTPI Research Report no. 5, June 2014. London: RTPI. Available at: http://www.rtpi.org.uk/media/1020792/rtpi_research_report_value_of_planning_full_report_june_2014.pdf (accessed 13th August 2015).

Aghion, P., Besley, T., Browne, J., Caselli, F., Lambert, R., Lomax, R., Pissarides, C., Stern, N. and Van Reenen, J. (2013) Investing for prosperity: skills, infrastructure and innovation, Report of the LSE Growth Commission, LSE Centre for Economic Performance. Available at: <http://www.lse.ac.uk/researchAndExpertise/units/growthCommission/documents/pdf/LSEGC-Report.pdf> (accessed 13th August 2015).

Bell, M., Lizieri, C., MacGregor, B. (1998) *The Economics of Commercial Property Markets*. London: Routledge.

Betts, P. (2004) *The Authority of Everyday Objects: a Cultural History of West German Design*. Berkeley, CA: University of California Press.

Boschma, R.A. and Frenken, K. (2006) Why is economic geography not an evolutionary science? Towards an evolutionary economic geography, *Journal of Economic Geography*, 6: 273-302.

Bruns-Berentelg, J. (2006) Real estate strategies in a large-scale urban development project: generating a high quality public good by developing competitive and transparent market-driven approaches and processes. The HafenCity Hamburg project. European Real Estate Society Annual Conference, 2006.

Bruns-Berentelg, J. (2013) The economics of good planning: integrating Hamburg. Urban Age City Transformations Conference, 2013.

Bruns-Berentelg, J. (2015) Governance and organisation of HafenCity Hamburg GmbH urban development company. Written communication.

Cheshire, P. and Sheppard, S. (2005) The introduction of price signals into land use planning decision making: proposal. *Urban Studies*, 42: 647-63.

Colomb, C. (2007) *Making Connections: Transforming People and Places in Europe. Case Study of Roubaix, Lille (France)*. York: Joseph Rowntree Foundation.

CPRE (2011) What we want to see in the national planning policy framework. London: Council for the Protection of Rural England.

De Wolff, H. (2004) Urban land readjustment: establishing joint ownership as a new tool for urban regeneration in the Netherlands, in: H. Hagen and R. Keles (eds.) *Old and New Land Tenure Rights in their Cultural Context*. Bern: Peter Lang AG, European Academic Publishers. Pp. 111-24.

Doebele, W.A. (2007) Foreword, in: Y.H. Hong and B. Needham (eds.) *Analysing Land Readjustment: Economics, Law and Collective Action*. Cambridge, MA: Lincoln Institute of Land Policy.

Dorman, N. (2004) Foreword, in: A. Boussabaine and R. Kirkham (eds.) *Whole Life-Cycle Costing: Risk and Risk Responses*. Oxford: Blackwell.

Evans, A.W. (1988) *No room, no room!* Occasional Paper no. 79. London: Institute of Economic Affairs.

Evans, A.W. (1991) Rabbit hutches on postage stamps: planning, development and political economy, *Urban Studies*, 28: 853-70.

Falk, N. (2007) Lessons from Freiburg: pointers for 'eco-towns' provided by the Vauban and Rieselveld extensions of Freiburg, *Town and Country Planning*, 76: 336-39.

Falk, N. (2014) *Funding Housing and Local Growth: How a British Investment Bank can help*. London: The Smith Institute.

Faludi, A. and van der Valk, A. (1994) *Rule and Order: Dutch Planning Doctrine in the Twentieth Century*. Dordrecht: Kluwer Academic Publishers.

Farrell, J. and Rabin, M. (1996) Cheap talk, *Journal of Economic Perspectives*, 10: 103-118.

Ferrari, A., Henneberry, J., Laughlin, D.L., Tait, M., Watkins, C. and McMaster, R. (2011) Behavioural Change Approach and the Housing Sector: Scoping Study. London: DCLG.

Fraser, C. and Baert, T. (2003) Lille: from textile giant to tertiary turbine, in: Couch, C., Fraser, C. and Percy, S. (eds.) *Urban regeneration in Europe*. Oxford: Blackwell.

Gualini, E. and Majoor, S. (2007) Innovative practices in large urban development projects: conflicting frames in the quest for 'new urbanity', *Planning Theory and Practice*, 8: 297-318.

HafenCity Hamburg GmbH (2015) HafenCity development: facts and figures, available at: <http://www.hafencity.com/en/overview/hafencity-development-facts-and-figures.html> (accessed 21st July 2015).

Hall, P. (2002) *Urban and regional planning*, 4th edition. London: Routledge.

Hall, P. (2014) *Good Cities, Better Lives: How Europe Discovered the Lost Art of Urbanism*. Abingdon: Routledge.

Haughton, G., Deas, I. and Hincks, S. (2014) Making an impact: when agglomeration boosterism meets antiplanning rhetoric, *Environment and Planning A*, 46: 265-270.

Healey, P. (2003) Collaborative planning in perspective, *Planning Theory*, 2: 101-23.

- Hilber, C. and Vermeulen, W. (2014) The impact of supply constraints on house prices in England, *The Economic Journal*, forthcoming.
- Hodgson, G.M. (1998) The approach of institutional economics, *Journal of Economic Literature*, 36: 166-192.
- Klosterman, R.E (1985) Arguments for and against planning, *Town Planning Review*, 56: 5-20.
- Kocher, M.G. and Sutter, M. (2005) The decision maker matters: individual versus group behaviour in experimental beauty contest games, *The Economic Journal*, 115: 200-223.
- Larsson, G. (1997) Land readjustment: a tool for urban development, *Habitat International*, 21: 141-152.
- Le Galès, P. and Mawson, J. (1995) French urban policy: the implications for regeneration policies in the English regions, *Planning Practice and Research*, 10: 379-398.
- Li, L-H. and Li, X. (2007) Land readjustment: an innovative urban experiment in China, *Urban Studies*, 44: 81-98.
- Logan, J. and Molotch, H. (1987) *Urban fortunes: the political economy of place*. Berkeley, CA: University of California Press.
- Lord, A. (2012) *The Planning Game: an Information Economics Approach to Understanding Urban and Environmental Management*. Abingdon: Routledge.
- Lord, A.D. (2009) The Community Infrastructure Levy: an information economics approach to understanding infrastructure provision under England's reformed spatial planning system, *Planning Theory and Practice*, 10: 333-349.
- Lord, A.D. and Tewdwr-Jones, M. (2014) Is planning 'under attack'? Chronicling the deregulation of urban and planning in England, *European Planning Studies*, 22: 345-361.
- Lyons, M. (2015) *The Lyons housing review: mobilising across the nation to build the homes our children need*. Labour Party. Available at: http://www.yourbritain.org.uk/uploads/editor/files/The_Lyons_Housing_Review_2.pdf (accessed 13th August 2015.)
- Morgan, M. and Cruickshank, H. (2014) Quantifying the extent of space shortages: English dwellings, *Building Research and Information*, 42: 710-724.
- Needham, B. (2007) The search for greater efficiency: land readjustment in the Netherlands, in: Y.H. Hong and B. Needham (eds.) *Analysing Land Readjustment: Economics, Law and Collective Action*. Cambridge, MA: Lincoln Institute of Land Policy.
- Nibbelink, J.G., Kuijer, G., Bonke, M., van Uum, E., van der Krabben, E. and van der Stoep, H. (2013) Stedelijke herverkaveling: Westzijde stationsgebied Nijmegen, presentation given at NWO-VerDuS, *Urban Regions in the Delta – Delta Oost*, 6th May 2013.
- OECD (2010) *Organising local economic development: the role of development agencies and companies*. Paris: OECD.

OECD (2012) *The competitiveness of global port cities: the case of Hamburg*. Paris: OECD.
OECD (2013) *Regions at a glance: Germany profile*. Paris: OECD.

Martin, R., Gardiner, B., Tyler, P. (2014) *The Evolving Economic Performance of UK Cities: City Growth Patterns 1981-2011*, Future of Cities Working Paper. London: Government Office for Science.

Mazzucato, M. and Penna, C.C.R. (2014) *Beyond market failures. The market creating and shaping roles of state investment banks*, Working Paper Series, Science Policy Research Unit, University of Sussex. Available at: http://marianamazzucato.com/wp-content/uploads/2014/12/2014-21_SWPS_Mazzucato-and-Penna.pdf (accessed 13th August 2015).

McCain, R.A. (2009) *Game theory and public policy*. Cheltenham: Edward Elgar.

Nathan, M. and Overman, H. (2011) *What we know (and don't know) about the links between planning and economic performance*, Policy Paper 10, Spatial Economics Research Centre, LSE. Available at: <http://www.spatialeconomics.ac.uk/textonly/SERC/publications/download/sercpp010.pdf> (accessed 13th August 2015.)

National Trust (2011) *Planning for People*. Swindon: National Trust.

Overman, H. (2014) Making an impact: misreading, misunderstanding and misrepresenting research does nothing to improve the quality of public debate and policy making, *Environment and Planning A*, 46: 2276-2282.

Oxley, M., Brown, T., Nadin, V., Qu, L., Tummers, L. and Fernández-Maldonado, A-M (2009) *Review of European Planning Systems*. Titchfield: National Housing and Planning Unit.

Pojani, D. and Stead, S. (2014) Going Dutch? The export of sustainable land-use and transport planning concepts from the Netherlands, *Urban Studies*, Online Article.

Priemus, H. and Louw, E. (2000) *Gemeentelijk grondbeleid. Regiefunctie bij de realisatie van ruimtelijk beleid* [Municipal land policy. The directive function in the realisation of spatial policy.] Delft: Delft University Press.

Priemus, H. and Louw, E. (2003) Changes in Dutch land policy: from monopoly towards competition in the building market, *Environment and Planning B*, 30: 369-378.

PRP Architects, URBED and Design for Homes (2008) *Beyond Ecotowns: Applying the Lessons from Europe: Report and Conclusions*. London: PRP Architects Ltd.

Rasmussen, E. (2007) *Games and information*. Oxford: Blackwell.

Rawls, J. (1971) *A theory of justice*. Cambridge, MA: Belknap Press.

Royal Institute of Chartered Surveyors (RICS) (2012) *Capturing planning gain: the transition from Section 106 to the Community Infrastructure Levy*. RICS. Available at: <http://www.cchpr.landecon.cam.ac.uk/Projects/Start-Year/2011/Impact-recent-financial-crisis-planning-affordable-housing-England/Capturing-Planning-Gain-Transition-S106-to-Community-Infrastructure-Ley/Report> (accessed 13th August 2015).

Royal Town Planning Institute (RTPI) (2015) Strategic Planning: Effective Cooperation for Planning Across Boundaries. RTPI. Available at: <http://www.rtpi.org.uk/media/1230885/RTPI-Strategic%20Planning-Brochure%20FINAL%20web%20PDF.pdf> (accessed 17th September 2015).

RTPI-Arup, (2015), Investing in Delivery: How we can respond to the pressures on local authority planning, RTPI. Available at: <http://www.rtpi.org.uk/media/1496890/RTPI%20Arup%20Research%20Report%20Investing%20in%20Delivery%2010%20October%202015.pdf>

Samsura, D.A.A., Van der Krabben, E., Van Deemen, A.M.A. (2010) A game theory approach to the analysis of land and property development processes, *Land Use Policy*, 27: 564-578.

Samsura, D.A.A., Van der Krabben, E., Van Deemen, A.M.A. and Van der Heijden, R.E.C.M. (2015) Negotiation processes in land and property development: an experimental study, *Journal of Property Research*, 32: 173-191.

Saxenian, A. (1994) *Regional Advantage*. Cambridge MA: Harvard University Press.

Schubert, D. (2014) Three contrasting approaches to urban redevelopment and waterfront transformations in Hamburg: 'string of pearls', HafenCity and IBA (International Building Exhibition), *ISOCARP*, 48-61.

Straffin, P.D. (1977) Homogeneity, independence and power indices, *Public Choice*, 30: 107-118.

Town and Country Planning Association (TCPA) (2015) New Towns Act 2015?. TCPA. Available at: <http://www.tcpa.org.uk/data/files/NTA2015.pdf> (accessed 13th August 2015.)

Turk, S.S. (2008) An examination for efficient applicability of the land readjustment method at the international context, *Journal of Planning Literature*, 22: 229-42.

Urban Land Institute (2007) HafenCity models of development success: unlocking regeneration opportunities, presentation by Jürgen Bruns-Berentelg at ULI European Trends Conference, Hamburg.

Valler, D., Phelps, N.A. and Wood, A.M. (2012) Planning for growth? The implications of localism for 'Science Vale', Oxfordshire, UK, *Town Planning Review*, 83: 457-87.

Van der Krabben, E. and Needham, B. (2008) Land readjustment for value capturing: a new planning tool for urban redevelopment, *Town Planning Review*, 79: 651-72.

Van der Krabben, E. and Jacobs, H. (2013) Public land development as a strategic tool for redevelopment: reflections on the Dutch experience. *Land Use Policy*, 30: 774-783.

Van der Krabben, E. and Heurkens, E. (2015) Netherlands: a search for public-private development strategies from neighbouring countries, in: G. Squires and E. Heurkens (eds.) *International Approaches to Real Estate Development*. London: Routledge.

VROM (2007) The Land Development Act: new regulations for the development of building locations, available at: <https://www.rijksoverheid.nl/documenten/brochures/2007/11/01/the-land-development-act-new-regulations-for-the-development-of-building-locations> (accessed 16th September 2015).

White, A. (2014) Developer and government 'stand-off' could stall Ebbsfleet Garden City, *Daily Telegraph*, 19/10/14. Available at:
<http://www.telegraph.co.uk/finance/newsbysector/constructionandproperty/11171491/Developer-and-Government-stand-off-could-stall-Ebbsfleet-Garden-City.html> (accessed 13th August 2015).

Winter, E. (2002) The Shapley Value, in: R.J. Aumann and S. Hart (eds), *The handbook of game theory with economic applications*. Amsterdam: Elsevier.

Yau, Y. (2012) Homeowner involvement, land readjustment and sustainable urban regeneration in Hong Kong, *Journal of Urban Technology*, 19: 3-22.



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About the research

This report is based on research conducted for the RTPI by Dr Alex Lord and Dr Phil O'Brien, Dr Olivier Sykes and Dr John Sturzaker of the University of Liverpool.

Further information

The report is available on the RTPI website at: www.rtpi.org.uk/spire

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