How the infrastructure levy can be designed to boost social and affordable housing supply

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Executive summary

In August 2020, Government announced plans to consult on major reforms to the planning system. These included a proposal to replace with a new Infrastructure Levy (IL) the mechanisms developers are obligated to follow when delivering social and affordable housing and other infrastructure on developments. The current mechanisms are known as Section 106 agreements, and the Community Infrastructure Levy (CIL).

The proposal is a welcome recognition that the existing system of developer contributions is flawed. This is supported by new analysis from JRF showing that in London, the number of homes delivered through Section 106 fell short of what is required in every borough's local plan between 2017-18 and 2019-20. This is because developer contributions are easily evaded by developers, and also slow and regionally imbalanced.

The failure of the current system means we are not adequately capturing uplifts in the value of land. This is despite the value of land in the UK having increased by around 400% between 1995 and 2015, accounting for 51% of the UK's total net worth (£9.8 trillion). This means that our current model of development is not delivering the sorts of homes or infrastructure that communities need.

The introduction of an infrastructure levy could remedy this. By being fixed, and therefore un-negotiable, an infrastructure levy should mean that more revenue is collected and ensure that this is done in a more efficient manner. The proposed design - a levy charged on a fixed proportion of development value above a threshold - will also mean that it more explicitly targets the uplifts in land value gained from achieving planning permission.

However, achieving this will require the careful design of the new system and new modelling contained in this briefing shows that these proposals currently present several risks. These are that:

- The Infrastructure Levy will need to be set at a sufficiently ambitious rate for it to collect the revenues to deliver much-needed social and affordable homes and other infrastructure. But a local approach, where each authority sets its own rate, could prevent this if local authorities face a 'race to the bottom' in rate setting. There is a need to design a local approach that promotes sufficiently ambitious infrastructure levy rates, while allowing flexibility so as not to make a large amount of development unviable.
- Set at a higher level, an Infrastructure Levy could prevent landowners from bringing sites forward in the hope of persuading local authorities to reduce their rates. Local authorities lack the tools to prevent this.
- While well intentioned, the affordable housing ring fence proposed in the white paper, where local planning authorities could mandate that a proportion of levy receipts are earmarked for social or affordable housing, could constrain the amount of funding captured through the levy for social and affordable housing. This is because a significant proportion of levy receipts may need to be used to

deliver social and affordable housing on a particular site, and an arbitrary ring-fence may constrain what is available to achieve this.

- Councils will continue to face trade-offs in how they use their Infrastructure Levy receipts, and this could further entrench regional inequalities. Regions where land and property prices are lower will receive less from levy receipts, and this needs to be recognised and resolved through capital expenditure or it will undermine plans to level up English regions.

These challenges can be overcome through effective policy design, and this briefing presents a series of recommendations that if enacted would enable this. Ensuring that an Infrastructure Levy would capture a fair share of uplifts in land value to deliver vital infrastructure and affordable and social housing.

Recommendations

The Infrastructure Levy should be designed to maximise land value capture. This should entail:

- Taking a zonal approach to setting the levy to both control and capture land values. This would mean local authorities could vary the rate they charge within their boundaries, setting higher rates where potential uplifts in land value are greater (such as green field sites) and reduced rates where they are lower (such as brown field sites in need of remediation).
- Retaining upfront affordable housing commitments, fixing these in local plans. This would assign an affordable housing requirement to all sites in a local plan, meaning it is a fundamental part of land values.

To work effectively, the new system must rebalance the power between developers, landowners, and local authorities. To do this the Government should:

- Reform Compulsory Purchase Order (CPO) rules to ensure that local authorities can more effectively purchase land where it is being held back from development. This would help prevent landowners holding back sites in the hope of persuading local authorities to revise down their infrastructure levy rates.
- Promote and enable local government to take an active role in the land market, investing in resource to support them to assemble sites for development, shaping the nature of their communities.

Political accountability and transparency will be key to an effective local Infrastructure Levy system. This should mean:

- Setting strict tests and benchmarks for Infrastructure Levy rates and thresholds. This should include setting regional benchmarks which local authorities must reference in rate setting.
- Making transparency on levy receipts a requirement for local authorities, capturing data locally and publishing this centrally.

These reforms should be part of a move towards an infrastructure first approach:

- Government should roll-out the Single Housing Infrastructure Fund (SHIF) alongside these reforms, ensuring a balance between capital funding and levy receipts in funding infrastructure. This will be particularly important in areas where levy receipts will be lower, particularly to achieve wider plans for levelling up.

Introduction

In August 2020 the Government announced plans to consult on major reforms to the planning system (MHCLG, 2020a). In his foreword to the consultation, the Prime Minister stated that these reforms would amount to “radical reform, unlike anything we have seen since the Second World War” (Ibid).

Included in these plans was a proposal to replace the mechanisms through which developers are obligated to deliver social and affordable housing and other infrastructure on developments (Section 106 agreements and the Community Infrastructure Levy [CIL]), with a new Infrastructure Levy (IL). This is a proposal that the previous Secretary of State argued was motivated by a desire to deliver “more infrastructure and more affordable housing than ever before” (MHCLG, 2020b).

The commitment to ensuring that social and affordable housing supply remains constant, and is potentially increased, through these reforms was welcome. Section 106 is an important source of social and affordable housing supply. In 2019/20, nearly half (43%) of all social and affordable housing net additions in England came through developer contributions. This is particularly the case for social rent homes, with developer contributions accounting for 40% of all new social rent delivered in 2019/20(Department for Levelling Up, Housing & Communities, 2021).

At the same time, the Government is right to recognise that the existing system is not ideal, and reform is much needed. It can be slow, its design has seen developers’ water down their obligations, it forces on-site trade-offs on what infrastructure is delivered, and it is regionally imbalanced. This is an opportunity to ensure proposals work more effectively and that new development delivers an increased supply of social and affordable housing and investment in vital infrastructure.

Particularly welcome is the more explicit focus these reforms place on capturing uplifts in land value through the planning system. More effectively capturing the gains landowners see when sites are developed can, and should, be a source of funding for necessary infrastructure, and one which can more fairly share this cost across the economy. Achieving this will require the careful design of a new system.

However, the current proposals present several risks, particularly to the continued supply of social and affordable housing. To this end, this briefing will make the case for a bolder approach to land value capture, setting out why it is necessary if we are to resolve some of the challenges faced in our housing market, particularly by those on lower incomes. In this context, it will examine the Government’s proposals for an Infrastructure Levy to understand how the current and proposed systems compare, and what risks exist to social and affordable housing supply under the new proposals. It will conclude by offering proposals on how these can be overcome.

We must do more to capture uplifts in land value

> "Roads are made, streets are made, services are improved, electric light turns night into day, water is brought from reservoirs a hundred miles off in the mountains – and all the while the landlord sits still. Every one of those improvements is effected by the labour and cost of other people and the taxpayers. To not one of those improvements does the land monopolist, as a land monopolist, contribute, and yet by every one of them the value of his land is enhanced. He renders no service to the community, he contributes nothing to the general welfare, he contributes nothing to the process from which his own enrichment is derived."
>
> Winston Churchill, 1909

From farming to industry, to housebuilding, land is a fundamental input into economic activity. Almost all our most pressing societal and economic challenges, from the housing crisis to decarbonising in line with net-zero targets, will require questions about land use and ownership. Yet debates on land, particularly how we tax and regulate it, have largely slipped out of political discourse.

This is despite land playing an ever more dominant and dysfunctional role in our economy. Between 1995 and 2016 the value of land in the UK increased by around 400%, from £918 billion to over £5 trillion. Land now represents 51% of the UK's total net worth (£9.8 trillion), much of that owned by individuals through homeownership (Ibid). These increases have far outstripped that of other assets.

This has important consequences. Inequalities in land ownership, principally through homeownership, are driving increasing inequalities in wealth (Murphy, 2018). Limited measures to control the value of land underpin the high cost of housing and the nature of development, setting up tensions between landowners, developers, and local communities (Ibid). And through the creation of a widely spread base of people with a vested interest in maintaining the value of land, policies designed to overcome these challenges risk being met with significant political opposition, making these issues hard to navigate and resolve (Castro Coelho and Ratnoo, 2020).

The increasing value of land is tied to our broken housing market

Increases in land values are inextricably tied to house prices. Figures from the Office for National Statistics show that in 1995 the price paid for a dwelling was almost evenly split between the value of the land and the building that sits on it (ONS, 2017). In 2016, the cost of the land had risen to over 70% of the price paid for a dwelling, though with significant regional variation (Ibid).

The impacts of land prices on the cost of housing are most clearly seen in the development of new-build homes, where land prices are in a large part driven by the UK's largely speculative model of house building (Jeffreys and Lloyd, 2017, Murphy,

2018, and Bentley, 2017). This means developers compete for sites, bidding against each other to secure plots of land. The price they can pay for land is determined by what they build, and in turn what they can sell it for.

The amount a developer can pay for a plot of land in this system is determined as the residual value. It is determined by taking the total value of the homes that are built on a site (the Gross Development Value, or GDV) and deducting from it the cost of building the homes, any policy costs (such as the provision of affordable homes) and the developer's profit. In a competitive, speculative land market, developers need to compete for sites on price, and this means reducing costs and maximising returns (through higher density, fewer community facilities and/or higher prices) to increase the residual value of land to a more competitive level (Jeffreys and Lloyd, 2017, Murphy, 2018, and Bentley, 2017).

Jeffreys and Lloyd (2017) argue that this results in a situation where 'land value is a direct trade-off between landowners and the wider community'. If a developer intends to build more community infrastructure to deliver a high proportion of the homes as social and affordable housing, or seeks to build homes that would be marketed below the highest rate possible, then the amount they can bid for land is reduced relative to a bidder who has more profitable plans, and they are less likely to secure the plot.

This model is problematic for many reasons. It contributes to the escalating cost of housing. While new-build transactions represent a small proportion of all sales, less than 10% (Property 118, 2021), and wider trends relating to supply and demand drive much of house price growth, ensuring that new supply is affordable is nonetheless important.

The high cost of land also prices out other entrants to the market. Small and medium-sized (SME) builders, who have historically contributed to a greater diversity of developments and faster build-out rates, find accessing plots at these rates challenging, and this is one of the drivers of the consolidation of house building and the dominance of a small number of large developers (Aubrey 2018).

It also prices out social and affordable housing providers and community housing providers, who need cheaper land to deliver homes sold or rented out at submarket rates (Ibid). This acts, alongside wider funding constraints, to limit the ability of housing providers to provide an adequate supply of social and affordable housing.

The ultimate beneficiary of this situation is the landowner who stands to make a significant return if their land can be developed for residential use (Bentley, 2017).

This can be seen in the uplifts in land value flowing from a change of use. A hectare of agricultural land in England is worth on average around £23,000, with very little regional variation (MHCLG, 2020c). Were it granted planning permission, this would increase on average to £2.6 million (excluding London), around a 100-fold increase. Land in London, the South East, and the South West would increase in value 250, 206, and 108 times respectively (Ibid).

Mechanisms for land value capture are necessary to provide infrastructure and tame this broken market

This situation is underpinned by the way that land behaves as an asset.

What makes land different to other sources of wealth is that its value is largely derived not from any direct productive activity on the part of the landowner, but through activities and investment elsewhere in the economy.

If a local authority redraws the boundaries of the green belt, a public authority builds a railway nearby, businesses invest in creating good-quality, well-paying jobs in the area or the community invests in activities to improve the neighbourhood, then these factors are likely to drive up the value of land, with its owner benefiting from its fixed, limited, and monopolistic nature. This is what economists and politicians from across ideological divides have referred to as the 'unearned increment' (Bentley, 2017).

In reality, this is a simplistic model for viewing the contemporary land market. Much of the land built on by developers has been subject to some form of contractual control, such as a right of pre-emption which gives the holder the right to be the preferred purchaser if the landholder decides to sell, or an option that gives the holder the right to acquire the land within a set time frame or subject to certain conditions, such as the land acquiring planning permission (MHCLG, 2020d).

These arrangements are used by developers to de-risk land acquisition, providing a supply of land for development while managing the risk that comes with owning land before it gains planning permission (Savills, 2018). A number of other actors also operate in the land market, such as land promotors and traders who have commercial strategies based on land securing planning permission (Ibid). This means that by the time land is developed, or re-developed, it may have been sold multiple times, with value extracted at each point.

Despite this additional complexity, the central argument remains the same. As land acquires permission, it will likely increase significantly in value with that return flowing to landowners and intermediaries. Therefore, there is a strong moral and practical case for mechanisms that target this uplift, distributing it more fairly for community benefit, specifically to provide a wider range of more affordable housing and community infrastructure. What is more, the UK is unusual when compared to similar economies across Europe and the rest of the world for not doing more currently (Falk 2019, 2020).

Two broad approaches exist to capturing land value uplifts: tax and development models.

- Tax-based models seek to levy a charge on all land, either as a recurrent charge based on its value (such as land value tax) or through a betterment tax, a charge based on estimated uplifts in newly developed land value, or the estimated uplifts they would see from public infrastructure investments levied (Murphy, 2018). This could be charged to the landowner who is selling a plot

for development, or those who more widely benefit from these investments, such as other landowners or local homeowners (Murphy, 2018).

- Development-based models see local or national government taking a more active role in land assembly and development, either through buying and then parcelling or developing land, extracting uplifts in its value through sales, acting as a joint partner in a development, or through leasing public land (Murphy, 2018).

Taking a more active approach to land value capture (LVC) allows local and national governments to do two things. Firstly, to raise funds to invest in essential infrastructure. Either upfront, to enable development, or by pooling contributions to fund bigger projects. Secondly, to exert greater control over what gets developed. This is particularly the case in development approaches to LVC where the state may act alone, or with private sector partners, to actively shape or develop a site on various elements, such as the type of homes and the necessary on-site infrastructure provided.

The UK's current developer contribution mechanisms are making a meaningful contribution towards infrastructure delivery, particularly the provision of social and affordable housing, but are weak by design.

The UK currently has a limited approach to land value capture, relying instead on a system of developer contributions. These are currently realised through two mechanisms: Section 106 agreements and the Community Infrastructure Levy. Both are designed, in differing ways and with different intents, to ensure that new development contributes to the infrastructure needs of communities, both existing and new. This means that these mechanisms were not designed to capture land value.

In 2018/19, the equivalent of £7 billion was agreed in developer contributions in England (Lord et al, 2020). Of this, £830 million was collected through the Community Infrastructure Levy (CIL) and £200 million through the Mayoral CIL in London (Ibid). The remaining £5.9 billion was collected as Section 106 obligations, in either cash payments or as on-site infrastructure (Ibid).

The majority (67%) of all Section 106 receipts are spent on the provision of affordable housing (Ministry of Housing, Communities & Local Government, 2020e), with this funding route playing an increasingly prominent role in the overall supply of social and affordable housing in recent years.

The number of social and affordable homes delivered through Section 106 has grown from around 1,000 to 3,000 units a year at the beginning of the 2000s, to around 30,000 in the year 2019/20. In 2019/20, Section 106 units accounted for just under half (43%) of all the affordable and social homes delivered that year (Ibid).

However, despite homes delivered through Section 106 making a significant contribution to new supply across the country, the policy is still falling short in holding developers to their obligations.

Local authorities set affordable housing policies in their local plans which mandate the proportion of new developments, over a certain size threshold, which should be affordable, and the tenure that these homes should be. JRF analysis finds that the amount and tenure type of the social and affordable housing delivered routinely does not match that mandated in local plans.

Table 1 showing a comparison of the proportion of net additions provided through Section 106 against local plan affordable housing policies in local plans by London Borough, 2017-18 to 2019-20*

Local Authority	% of new units which should be affordable according to local plan policies	Section 106 units as a % of total net additions
Barking and Dagenham	35%	8%
Barnet	40%	7%
Bexley	35%	14%
Brent	50%	8%
Bromley	..	24%
Camden	50%	19%
City of London	35%	2%
Croydon	50%	10%
Ealing	50%	11%
Enfield	40%	3%
Greenwich	35%	13%
Hackney	50%	7%
Hammersmith and Fulham	50%	8%
Haringey	40%	11%
Harrow	40%	8%
Havering	50%	0%
Hillingdon	35%	4%
Hounslow	40%	9%
Islington	50%	17%
Kensington and Chelsea	35%	6%
Kingston upon Thames	50%	9%
Lambeth	40%	12%
Lewisham	50%	12%
Merton	40%	27%
Newham	50%	14%
Redbridge	35%	25%
Richmond upon Thames	50%	1%
Southwark	35%	21%
Sutton	35%	13%
Tower Hamlets	35%	27%
Waltham Forest	50%	15%
Wandsworth	33%	13%
Westminster	30%	25%

* This data includes all net additions. Local plan affordable housing policies tend to exclude small sites from these policies. As data on site size is not available it has not been possible to exclude these sites from this data, as such they may overestimate the gap between policy ambition and delivery.

Source: JRF analysis using Table 123: housing supply; net additional dwellings, component flows of, by local authority district, England 2012-13 to 2019-20 and Table 3.39 Affordable housing policy by planning authority

As the data presented in table 1 shows, across London every borough is falling short on social and affordable housing delivery against the affordable housing policies set out in their local plans. This is both in absolute terms, the number of affordable homes delivered against the number of new-build homes built, and in terms of the tenure of the homes that are delivered.

While most local plans across London set out a need for most homes delivered through Section 106 contributions to be at social and London affordable rent levels, targets for these homes are not being met. Instead, an excess of homes for affordable homeownership (Shared Ownership and Discounted Home Ownership), which require lower subsidy levels and therefore capture less of the uplift in land values, are being built in their place.

This demonstrates that the contributions intended to be captured under Section 106 are not being realised. This is supported by research commissioned by the Ministry of Housing, Communities & Local Government (MHCLG) which found that not all planning obligations are delivered in the form originally agreed, with 65% of local planning authorities (LPAs) reporting that at least one of their planning agreements had been renegotiated in 2016/17 (Lord et al, 2020) resulting in fewer homes delivered and a smaller share of land value uplift captured by local planning authorities.

While the system has allowed the process of renegotiation to manage shifting market conditions (such as a fall in house prices, and therefore development value), this has been utilised to water-down contributions, aided by weak regulation and a lack of capacity in local authority planning departments, as will be discussed later in this briefing.

The Government needs to do more to capture uplifts in land value

Despite the practical and moral case for capturing uplifts in land value arising from its development, the UK's current mechanisms are weak. These limitations stem from weaknesses in their design and mean they are ripe for reform. Before understanding if and how the proposed Infrastructure Levy can overcome these, it is necessary to explore in greater depth what is driving the issues with the current system.

The way we currently capture uplifts in land value is not working

Limitations in the design of our current system of developer contributions undermine its ability to capture uplifts in land value. In addition, a reliance on these mechanisms rather than capital investment undermines the system's effectiveness further.

Section 106 is easily evaded by developers

Developer contributions have been a feature of planning policy locally and nationally since the 1930s, and their use and regulation has evolved. The contemporary mechanism, Section 106, was introduced in the Town and Country Planning Act 1990.

Developer contributions are not an explicit land value capture mechanism, rather they are designed to provide mitigation for the impact of a development on the local community, such as more cars on the road, more children needing schools, or additional pressure on health services, to offset costs to the community accruing from development. It is largely for this reason that the current system is unfit for capturing uplifts in the value of land.

Agreements are negotiated by a council and developer, and can be paid at different stages in the life course of the development. They can be a financial contribution or the direct provision of infrastructure (Ibid). The provision of affordable housing is a typical requirement of Section 106 agreements, and is specified in local plans and accounts for the highest proportional element in value terms.

When housing is provided it is either on-site (delivered as units on the development) or in-kind (an equivalent cash payment). Units are sold to housing providers at a discounted rate, making it viable to let them at affordable or social rent levels, or to sell them as shared ownership or discounted ownership homes (Ibid).

In addition to mandating infrastructure, Section 106 agreements can be used to place restrictions or conditions on the use of land. This may, for example, be to ensure that homes delivered on-site are maintained as affordable in perpetuity, or to mandate certain activities, such as air quality monitoring (Ibid).

The site-by-site nature of Section 106, while offering flexibility, creates an inherent uncertainty. The infrastructure provision required of a developer will only become clear at the point of securing planning permission, likely after the land purchase has been agreed (Bentley, 2017). While affordable housing policies should be available in local plans, other infrastructure provisions will be site-specific.

A lack of certainty means that policy costs cannot effectively be priced into land values, and it risks developers overbidding. This will either constrain developer returns, quality on-site, or the provision of social and affordable housing or other infrastructure (Bentley, 2017).

Legal loopholes have further worsened this situation, or at least formalised this emerging as an excuse, and have allowed developers to use arguments about the financial viability of sites to limit their obligations. This has been driven by rules within the National Planning Policy Framework (NPPF).

When the NPPF was introduced in 2012 it defined 'viability' in reference to developers being able to achieve 'competitive returns' (Grayston, 2017). This was largely interpreted by developers as meaning a 20% profit margin on developments (Ibid). This loophole has allowed developers to overbid for land, ensuring they were able to access it, and then to later cite viability concerns where the higher price of land would mean that local plan affordable housing requirements would reduce their margins below this arbitrary level (Ibid).

This 'viability' argument is widespread. Research from Shelter on 11 case study local planning authorities found that where viability assessments were used, developers were able to negotiate down their commitments to the equivalent to three-quarters of what local plans had set out - equating to the loss of 2,500 potential affordable homes on these sites (Grayston, 2017). Meanwhile, research focussing on major schemes between 2007 and 2013 found a 30% reduction in the amount of affordable housing delivered on sites that were renegotiated (Grayston, 2017). Though the time period this study observes - in the immediate aftermath of the global financial crisis - may have contributed to this.

This is further underpinned by power imbalances between developers and local authority planning departments. Research with planning authorities by Brownhill et al. (2015) argued that 'the normal, commercial negotiating style adopted by housebuilders was seen by the local authority officers as aggressive or confrontational', while others note that the raft of commercial data supplied by developers in viability assessments can be difficult to interpret for less experienced or well-resourced authorities (Garton and Barton, 2019).

It was also observed that authorities in weaker housing markets, where viability may be more marginal, authorities with less resource or experience, and authorities where the pressure to develop sites is greater, were more exposed to these issues (Brownhill et al, 2015). This, of course, is set against the backdrop of a reduction in central government funding for local authorities over the last decade (Centre for Cities, 2019).

The viability loophole was closed in 2018, with the NPPF now stating that developers should be ensured 'reasonable' rather than 'competitive' returns and making clear that 'under no circumstances will the price paid for land be a relevant justification for failing to accord with relevant policies in the plan.' (Grayston, 2018). This also clarified that viability assessments should only be used in limited circumstances and that instead, viability assessments should take place at the point local plan policies are set and not on a site-by-site basis (Ibid).

These were welcome reforms and analysis suggests they have had a positive impact. Data collected by Planner Magazine shows that affordable housing on sites of 550 or more homes climbed from 23% in 2018 to 28% in 2019, equivalent to 3,765 more

homes - a rise the authors attribute to the changed viability rules (Planner Magazine, 2019).

Research led by Liverpool University for MHCLG found that planning authorities felt the reforms gave them greater power in negotiations and reduced the time it took to agree obligations, however, they also reported that these issues continue to persist (Lord et al, 2020).

The design of the Community Infrastructure Levy (CIL) is more effective at capturing uplifts in land value, but it has been adopted in a limited manner

In 2010, the then Government introduced a charge on development in addition to Section 106 agreements: the Community Infrastructure Levy. This is a charge that local authorities can set on new development to raise funds to help with the infrastructure, facilities, and services (such as schools or transport improvements) needed to support new homes and businesses (Ibid).

CIL is a fixed charge levied on the floor space of a development, and the rate can vary based on the intended use of the development and by different areas within a local authority area (Ibid).

The CIL is intended to provide infrastructure to support the development of an area, while planning obligations are used to make an individual planning application acceptable in planning terms (so delivered on-site). Double charging - using developer contributions and CIL to pay for the same infrastructure project - is prohibited.

The Mayor of London operates a cross-borough Mayoral CIL rate. This can be in addition to the CIL charging of individual London boroughs and has been designed to raise £300 million towards the delivery of Crossrail.

The design of the Community Infrastructure Levy, as a fixed charge, overcomes some of the challenges with clarity and re-negotiation associated with Section 106, and as a result, means that the charge facing a developer is more likely to be costed into the land.

However, CIL is not in place nationally and only around half of local authorities have set CIL rates (Brownhill et al, 2015). This has been most common in local authorities with lower property prices, with local authorities often citing concerns about development viability as to why they haven’t opted to implement the levy (Ibid).

Where CIL has been adopted it can be complex, and subject to a range of different rates and exemptions (CIL Review Group, 2016). This can make the system difficult to navigate but also undermine its ability to capture value (Ibid).

Overall, CIL’s patchwork implementation and the ongoing introduction of exemptions has meant that it has fallen short in capturing value, failing to produce the predicted revenues it was intended to raise (Ibid).

We rely too heavily on these weak mechanisms to fund infrastructure investment

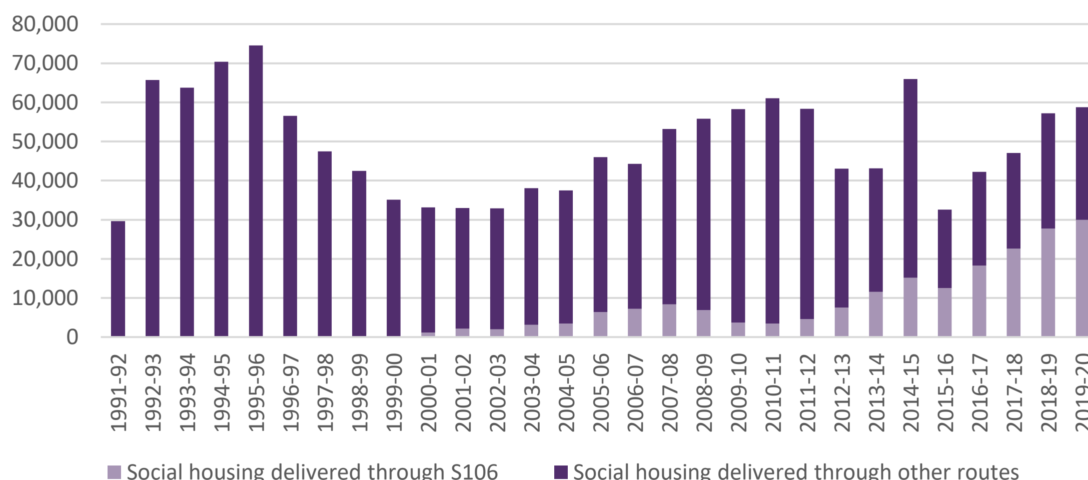
Despite the limitations facing section 106 and CIL, they are relied on heavily to fund infrastructure investment. This compounds the problems they face, creates on-site trade-offs and regional imbalances.

This is a relatively new trend, and Henneberry (2005)[1] argues that this is part of a wider shift in political economy which has seen expenditure shift from direct taxation to 'indirect, hypothecated taxes and user charges'. As a result, the costs of infrastructure and the remediation of the social and environmental consequences of development are increasingly being borne by developers and consumers (Ibid).

This shift from capital expenditure to developer levies can be seen in the provision of affordable and social and affordable housing. While Section 106 has proved a vital flow of social and affordable housing in recent years it, at least proportionally, reflects the changing nature of social and affordable housing funding.

While homes delivered through Section 106 have increased (both numerically and proportionally), this is offset by historically low levels of homes funded through capital grant, illustrative of the broader retrenchment of the state in the direct subsidy of social house building. Reliance on private development for social and affordable housing delivery also has other challenges, exposing it to wider market forces and meaning that social and affordable housing delivery could be harmed by a slowdown in private development.

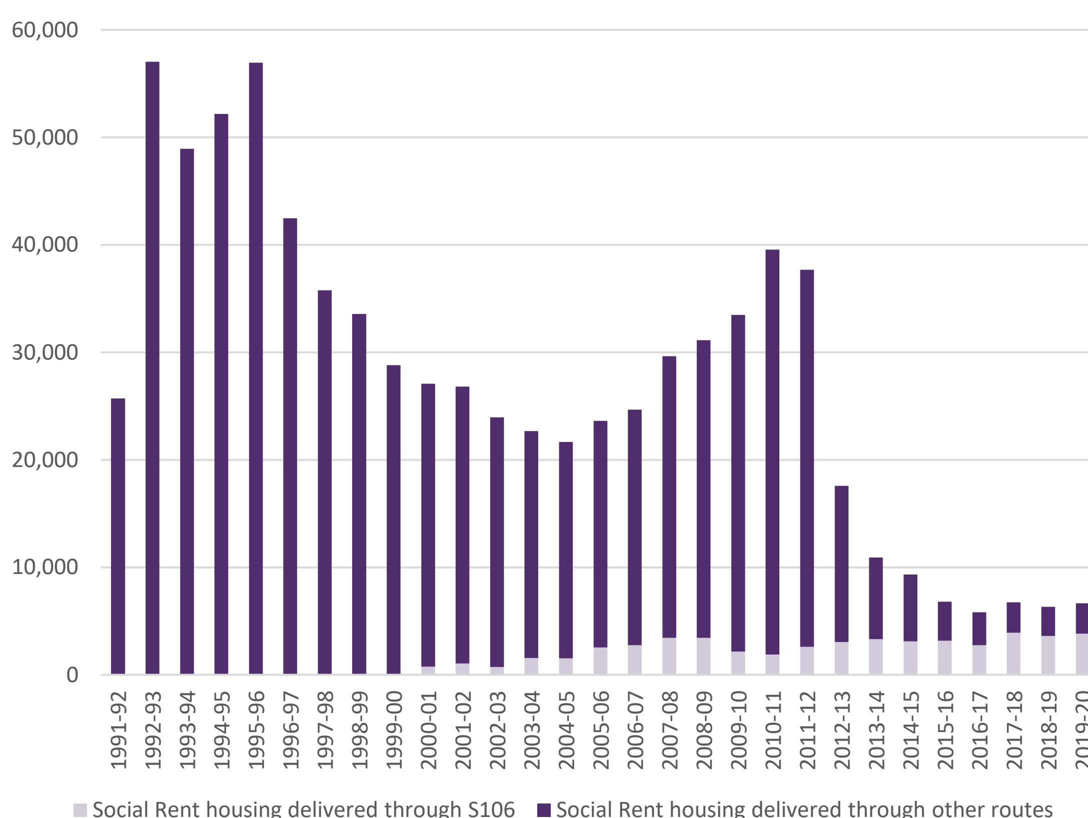
Figure 1. Showing the proportion of new social and affordable housing delivered through developer contributions has increased notably over the last decade



Source: JRF analysis of Table 1000: Additional affordable homes provided by type of scheme, England.

This is even more clear when looking at homes delivered at social rent levels, the most deeply subsidised form of social and affordable housing. The annual new supply of social rent homes is a fraction of that of the preceding two decades (6,644 in 2019/20 compared to 33,491 ten years previously in 2009/10) (Department for Levelling Up, Housing & Communities, 2021). Most of this new supply is delivered through Section 106 agreements. In 2019/20, 57% of all social rent units were provided via developer contributions.

Figure 2. Shows that the supply of social rent homes is at an historical low, and the largest share of delivery comes from developer contributions



Source: JRF analysis of Table 1000: Additional affordable homes provided by type of scheme, England.

This means that trade-offs exist within the Section 106 system. As developer contributions through Section 106 can contribute towards a range of infrastructure requirements, the most pressing requirements may crowd out other, still much needed, infrastructure (Bowie, 2010).

Delivering more transport, education and healthcare infrastructure may limit the affordable housing delivered, and vice versa. Analysis by Bowie (2010) for example found that in London between 2004 and 2009 applications called in by the Mayor secured lower levels of affordable housing, given the Greater Local Authorities' focus on transport infrastructure at the time (Bowie, 2010).

This reliance on developer contributions to fund infrastructure investment is also problematic in the context of our regionally imbalanced housing market. The revenue raised through Section 106 and CIL is highly dependent on property values. Under the current system, receipts are significantly skewed towards areas within higher property prices. In 2018/19 the South East, South West and London regions account for 61% of the total value of all obligations captured through Section 106 (Lord et al, 2020) and, variations exist within regions, including those with higher property values.

As a result, the funding available to local authorities to deliver infrastructure is higher in some parts of the country relative to others. As noted previously, the Mayoral CIL in London is being used to raise £300 million towards the funding of Crossrail. It is perhaps hard to imagine a similar approach being viable in the North or Midlands, where property values are considerably lower.

This regional imbalance would be present in any system of land value capture, and capital expenditure ought to account for this - funding social and affordable housing provision and other infrastructure needs where planning gain cannot. However, these differential rates of developer contributions sit atop existing inequalities in capital expenditure. Figures produced by IPPR North using government spending data showed that in 2019 planned transport expenditure was £3,636 per person in London but just £1,247 per person in the North. Higher expenditure in the North West (£1,247 per person) masks greater inequalities in Yorkshire and the Humber (£551 per person) and the North East (£519 per person). Historical analysis suggests that were the North to have received the same level of per capita spending as the capital over the last decade it would have received £66 billion more than was invested (Ibid).

The lack of capital investment not only undermines the delivery of infrastructure but also impedes development. Lower levels of up-front capital investment in infrastructure have an impact on sites coming forward, particularly as the limited effectiveness of our current developer contribution system does not capture enough value to retroactively fund this (Aubrey, 2018).

Government proposals for an Infrastructure Levy tackle the right problems but present a series of policy risks that must be overcome

Our current system of developer contributions is unfit for the task of capturing a fair share of land values of development sites, largely as it was never designed for this purpose. It is therefore welcome to see a recognition of this in the planning white paper.

The reforms proposed in the Government's planning white paper would see Section 106 and CIL abolished and replaced with a single, Infrastructure Levy (MHCLG, 2020a). The intent is for this levy to be more certain and therefore better capitalised into land values, and set as a fixed proportion of gross development value, therefore, removing the element of negotiation.

In the context of the challenges which have faced the current system this is welcome. But for it to work it will need to be designed carefully. Accordingly, it is necessary to explore the proposals in greater detail, highlighting the policy risks inherent in them. To do so, it will draw on modelling which compares the proposals with the current system.

An Infrastructure Levy would replace Section 106 with a fixed charge on the total value of a development

The planning white paper sets out that the Infrastructure Levy would be charged at a fixed rate to be paid when a development is sold (potentially at different phases of development). The rate would be paid on the final value of a development (Gross Development Value), above a minimum threshold.

The minimum threshold would reflect average build costs per square metre, with a small, fixed allowance for land costs (Ibid). Developments which are valued below the lower threshold would not be subject to the levy, with the proposed intention of ensuring lower value schemes are not made unviable (Ibid).

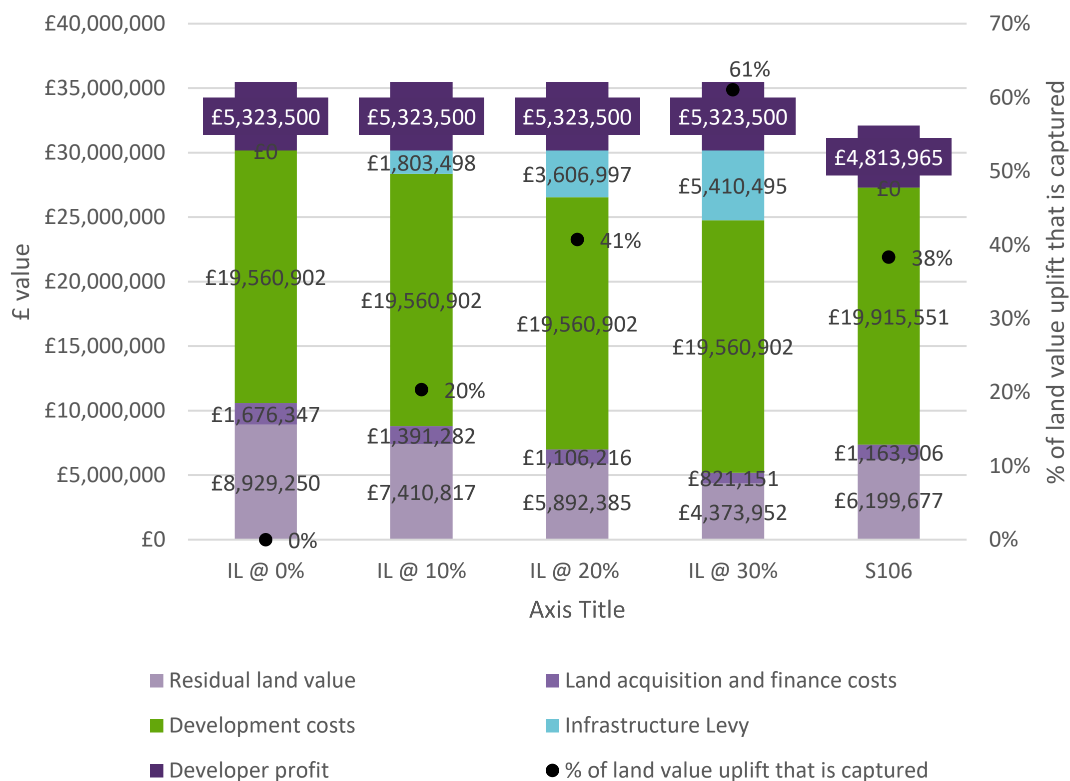
The new levy would also apply to all development, except self and custom build, including homes delivered through a change of use using new permitted development rights (Ibid). These homes are currently exempt from the developer contributions system and expanding the IL to apply to them would both ensure these developments contributed to the need for local infrastructure and overall could increase the total value of developments that are being captured by local government. It would also apply to other use classes, such as commercial developments (Ibid).

It is also noted in the white paper that the London Mayoral Community Infrastructure Levy, and similar strategic Community Infrastructure Levies in other combined authorities, could be retained.

In Figure 3 we show a comparison between the current Section 106 system and the Infrastructure Levy set at various rates. To compare the current system against the proposed Infrastructure Levy we have modelled an example development of 105 homes on a green field site at average prices - average new-build sale prices, average build costs for an equal split of two-, three- and four- bed homes, and average finance costs (see Methodological note at the end of this briefing).

A full breakdown of this methodology is presented in the annex to this briefing, but in short, we have used the residual land value modelling approach. This approach, based on work by Henneberry (2015), derives the amount of money a developer could pay for land based on a simple, widely used formula: Residual Land Value = Gross Development Value (GDV) – (Developer costs + Fees + Profits + Policy costs).

Figure 3. Shows a comparison of the Infrastructure Levy set at different rates to Section 106, on a 105-unit development at average prices for England, and where 20% of units would be affordable under Section 106 (70% for social rent and 30% for First Homes)



As Figure 3 shows, unsurprisingly, the amount the Infrastructure Levy raises, and how it compares with the current system, varies depending on the rate it is set at. However, in all but the lowest scenario, the Infrastructure Levy would capture a greater financial amount than the affordable housing delivered through Section 106 alone. What is more, as Figure 3 shows, that at the 20% rate IL would capture a greater but comparable proportion of land value uplift as section 106, and at 30% would capture around 20% more.

Section 106 agreements cover not just affordable housing, but also other infrastructure needs determined by local authorities on a site-by-site basis. It is hard to

make a meaningful comparison between IL receipts and likely infrastructure needs, given their site-specific nature. However, it is plausible that in the lower levy rate scenarios, this may leave relatively little available for infrastructure requirements on more complex sites.

A factor that is less clear in the planning white paper's proposals is how the land element of the threshold will function. It notes that a small, fixed allowance for land costs will be allowed. How this is defined will be important.

In this model, we have assumed the land threshold is set at ten times agricultural use value. This is in line with modelling by Crook et al. (2020), and in turn, references proposals contained in the Letwin Review (2017) and in-keeping with other modelling by Crook et al. (2020). Others have assumed that the threshold could be based on existing use value.

A challenge with a fixed land element is that set too low, it may impede developments on brownfield sites where costs are higher, and which may need to be remediated. Set too high, it will fail to effectively capture uplifts in land values present where land costs are cheaper, such as undeveloped greenfield sites. Conversely, a high rate could dissuade landowners to bring sites forward as will be discussed later.

On-site housing provision is proposed to continue through an affordable housing ring fence, which could risk constraining social and affordable housing delivery

The white paper reforms include plans to maintain the on-site delivery of social and affordable housing as an option for local authorities. It is proposed that local authorities could set an affordable housing ring fence of a certain proportion of the total Infrastructure Levy liability, with the discount on the homes sold to a housing provider being offset against this (MHCLG, 2020a).

We have modelled the proportion of levy receipts in the 10%, 20% and 30% scenarios (based on the England average model presented in Figure 3) that would be needed to deliver 20% affordable housing, with a 70/30 split between social rent and first home units.

Table 2: Shows the proportion of Infrastructure Levy receipts accounted for by the affordable housing commitment, on a 104 unit development at average prices for England and where 20% of units would be affordable under Section 106 (70% for social rent and 30% for First Homes)**

Infrastructure Levy rate	IL at 10%	IL at 20%	IL at 30%
Discount of affordable housing units as a percentage of total IL liability	188%	94%	63%

****** This is based on determining the average discount a developer would offer to a housing provider for 20% of homes on this site, split 70/30 between social rent and first homes, and assessing this as a proportion of the total infrastructure levy liability. Average discount rates are taken from Lord et al. (2020). The discount is taken off the average new build house price for England.

What is evident from this analysis is that the proportion of the Infrastructure Levy liability that would be taken up by social and affordable housing is considerable. This is presented in Table 2 which shows that between 188% and 63% of the levy would be accounted for by social and affordable housing subsidy at the different modelled rates. This means, particularly where the levy is set at a lower level, the Infrastructure Levy risks delivering fewer social and affordable housing units than through section 106.

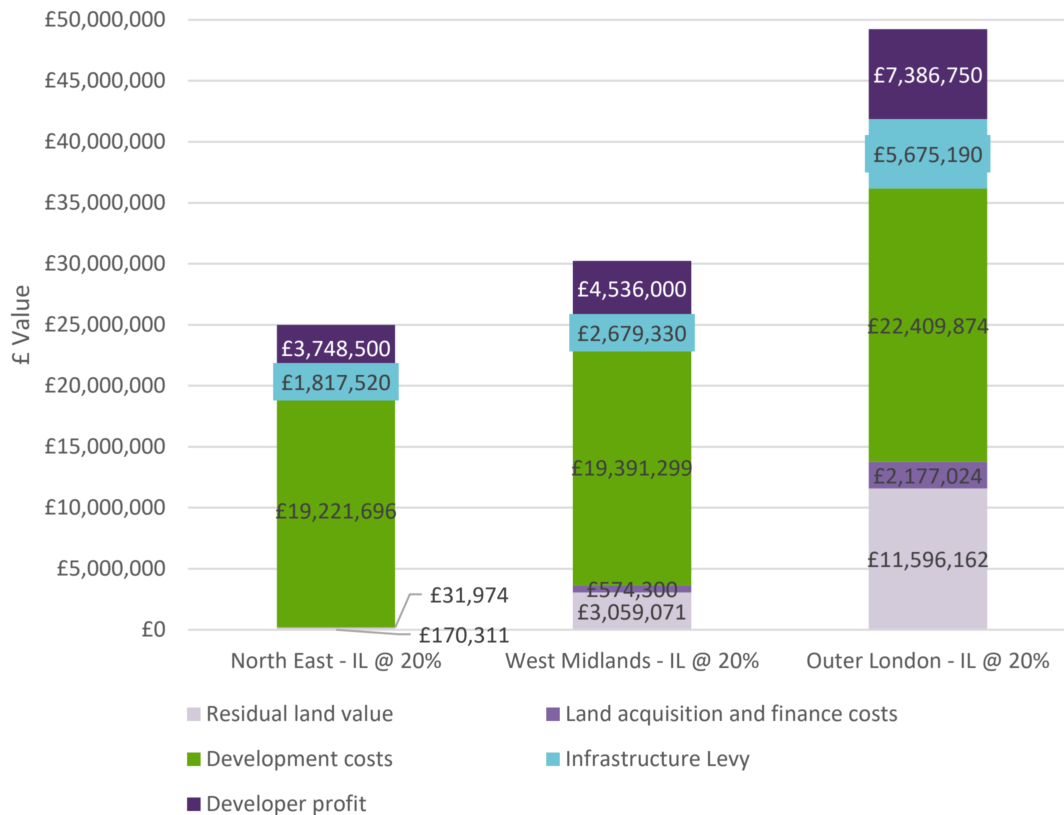
The Government is correct to put maintaining the supply of social and affordable housing delivered through developer contributions at the heart of their proposals. However, the proposed affordable housing ringfence could work against this, constraining the amount of social and affordable housing delivered on sites. Given that spending a high proportion of Infrastructure Levy liabilities on affordable housing could constrain other infrastructure spending and vice versa.

The Infrastructure Levy would be set by local authorities with receipts retained locally, but this risks a race to the bottom

The white paper proposed that the IL rate could be set as a single national rate, a regionalised rate, or could be set locally (MHCLG, 2020a). Subsequent announcements from the former Secretary of State have suggested that a local approach will be adopted, with local authorities able to set rates in their area (Heath, 2021).

This is likely in response to feedback and analysis which has shown that a national set rate has practical challenges, such as analysis from Crook, Henneberry and Whitehead (2021). This analysis found that a single rate would risk making large amounts of development unviable across the North and Midlands, where property prices are lower, while at the same time failing to capture an equivalent value to the current system in areas of higher land and property value such as London and the South East.

Figure 4: Shows a comparison of the Infrastructure Levy set at 20%, on a 105-unit development at average prices for England, and where 20% of units would be affordable under Section 106 (70% for social rent and 30% for First Homes), in the North East, West Midlands, and Outer London***



***This model uses the same assumptions as set out for the previous England model, with regional inputs. House prices are set at the average regional new build house price and build costs are adjusted using BRICs location index.

Using the same example site of 105 homes on green field land as in the previous modelling, we have run the scenarios for average house prices and build costs in the North East, the West Midlands, and Outer London (Figure 4). These housing markets are opted for as they demonstrate lower, average and higher house prices in England and therefore a range of development markets.

The results show that were the infrastructure levy rate to be fixed at 20%, with a land threshold adjusted to local land prices, it would have a variable impact across the country. In the North East, it would have the effect of reducing the residential value of land in this example development to a level that would likely make development unviable. While in the Outer London example, the amount of development value raised through the levy compared to the West Midlands (while larger in absolute terms) captures a relatively smaller amount of the uplift in land value. This suggests that the 20% rate may be too low in this region.

These figures show that a localised system will be important in managing the trade-off between development viability and capturing enough land value. A perhaps necessary consequence of this is to embed greater complexity into the system, despite initial

proposals seeking to create a far simpler system. At the same time, this requires individual councils to all set rates which are sufficiently high in their local area.

While councils are generally committed to delivering housing markets that meet the needs of their residents, they also face competing challenges and delivering new private housing is a key concern.

Faced with a threat to viability, risk-averse councils may set Infrastructure Levy rates at lower than necessary levels in a bid not to deter private development. This is a particular concern given the experience of CIL, where viability concerns have dissuaded local authorities from adopting the policy.

Conversely, challenges may face local authorities that set more ambitious rates. Bentley (2017) notes that landowners face two choices. One, to sell the land now in full view of present market conditions; or two, to hold off until market conditions or the policy environment changes.

In making this observation he quotes Titman (1985) who argues that 'the fact that investors choose to keep valuable land vacant or underutilized for prolonged periods of time suggests that the land is more valuable as a potential site for development in the future than it is as an actual site for constructing any particular building at the present time'.

An ambitious, higher Infrastructure Levy rate could dissuade people from bringing land forward for development, and councils lack measures to compel landowners to do so. A localised system could be more vulnerable to this than a national system if landowners or developers believe they have a greater opportunity to weaken policy commitments, either by direct lobbying or through holding out. In a context where local authorities are under pressure to meet house building targets it could be an effective means of weakening an otherwise ambitious levy rate.

The Infrastructure Levy could entrench regional inequalities

As expected, and as experienced in the current system, relative property prices will have an impact on the extent of the levy liability which is raised in an area. Comparing the West Midlands and Outer London examples even at the same rate, the amount raised differs considerably. As does the proportion of the levy which would be accounted for by social and affordable housing delivery.

As noted previously, this is not a new feature and the existing system of developer contributions faced a similar imbalance. However, as the Government has repeatedly set out plans to Level Up the country, tackling these inequalities through investment, it is important to acknowledge these disparities and address them using other forms of government spending.

What needs to be overcome to deliver a well-designed Infrastructure Levy?

Taken together, we can identify several policy risks associated with the new Infrastructure Levy. These are that:

- A fixed land value threshold could undermine the ability of the Infrastructure Levy to adequately capture land values.
- The Infrastructure Levy will only achieve the aim of delivering as much or more social and affordable housing if it is set at a sufficiently ambitious rate, but if designed poorly a localised approach risks undermining this.
- Set at a higher level, an Infrastructure Levy could prevent landowners from bringing sites forward and local authorities lack the tools to prevent this.
- An affordable housing ring fence, while well-intentioned, could constrain the amount of funding captured through the levy for social and affordable housing.
- Councils will continue to face trade-offs in how they use their Infrastructure Levy receipts. A move to an Infrastructure Levy could further entrench regional inequalities.

In the following section, we will set out how an Infrastructure Levy can be designed to overcome these risks

We can design an Infrastructure Levy that delivers a fairer share of land value uplift

While the current proposal for an Infrastructure Levy is fraught with risks, it does nonetheless seek to tackle the right challenge. Rather than abandoning this, the proposal should be adapted to take a bolder approach to land value capture which can ensure that a greater share of land value uplift is captured. And with that, social and affordable housing supply and infrastructure delivery are further boosted, on-site delivery continues, and regional imbalances are addressed head-on.

Designing the levy to maximise land value capture

A core focus in designing the Infrastructure Levy should be to ensure that it is capturing a fair share of uplifts in land on development sites. This can be achieved through both the way the rate is set and through ensuring that what is built in local areas meets local needs.

Taking a zonal approach to setting the levy to both control and capture land values

Evidence supports the argument that a locally set rate is most desirable if we are to balance maintaining development viability with ensuring rates are sufficiently ambitious.

However, development viability, property prices, and land costs also differ within local areas and across different types of development. Fixing a rate and threshold across a whole local authority area risks it being set at a 'lowest common denominator' level for fear of making certain sites unviable.

To overcome this, local authorities should be given the freedom to set multiple rates and threshold levels. This should allow for rates to differ by both development value and by type of site.

Crucially, this would mean that areas and sites that see the potential for the largest uplifts in land value, particularly greenfield sites, would see rates that ensured they are contributing the most. While brownfield sites, which may have high remediation costs, are not discouraged.

Doing this would inevitably introduce a greater degree of complexity into the system relative to a flat rate across a local authority. This would particularly be the case if introduced on a site-by-site basis, which could still lead to large amounts of negotiation between local authority and developer.

To counter this, a zonal approach should be adopted. This would designate certain local areas as having a set Infrastructure Levy and threshold which would apply to all development in that geography.

Retain upfront affordable housing commitments, fixing these in local plans

In addition to rate setting, how on-site affordable housing delivery is achieved is an important consideration. An affordable housing ring fence is on paper a sensible solution to maintaining the on-site delivery of affordable housing, but as this briefing has shown, could in practice constrain social and affordable housing delivery.

To overcome this, rather than setting a ring fence that may be inadequate, the Government should maintain upfront affordable housing requirements. These, as is currently the case in local plans, should set out the proportion of a site that is required to be affordable and a breakdown of the tenures which are needed.

This would mean that rather than deciding on a site-by-site basis whether affordable housing is needed, all sites would be assumed to contain affordable housing as part of the mix of homes on offer.

This would be in addition to the infrastructure levy, and the levy should then be charged on the gross development value of all the homes delivered. The development of those homes which are social would be adjusted to reflect the discount offered to housing providers.

In addition, these affordable housing policies should be adopted alongside the different Infrastructure Levy rates set by a local authority. So, in areas where social and affordable housing demand is higher, or potential land value uplifts greater, a more stretching policy for the proportion of homes that are affordable could be set.

This is a diversion from the proposals currently set out in the planning white paper, but an important one. Planning, and land value capture, should not just be about redistributing cash to offset the impacts of a dysfunctional housing market, but also about determining the nature of development and ensuring that this responds to what the community needs.

Rebalance the power between developers, landowners and local authorities

Under the current system, local authorities play a minor role in the land market, and this is manifest in the imbalances of power between developers and local planning authorities. Reforming the powers local authorities hold in respect to the land market should be considered alongside these reforms.

Reform Compulsory Purchase Order (CPO) rules

A particular challenge facing these reforms is that housebuilding requires land to be brought forward for development. Historic attempts to establish mechanisms for land value capture have had a negative impact on the supply of land for development, with landowners holding out in hope of a policy change (Bentley, 2018).

Local authorities and central government lack measures to compel landowners to bring forward land and without addressing this, local authorities who set ambitious Infrastructure Levy rates may find that themselves in a game of 'chicken' with landowners, who hold land back in the hope of a more favourable policy environment.

Compulsory Purchase Order (CPO) powers have historically allowed local authorities to intervene in the land market by buying land at existing use value without consent. These powers were used widely in the late 1940s and through the 1950s to develop new towns (Murphy, 2018). State-owned development vehicles purchased land at existing use value, developing it to provide much-needed housing and unlocking its value in the process (Ibid).

In the 1961 Land Compensation Act, these powers were altered to mean that local or central government must pay the landowner a price that reflects the value the land would fetch were it to have been granted planning permission (the hope value) (Ibid). This had the effect of limiting the ability of governments to unlock this uplift in value to fund development and infrastructure.

This reform was a response to a dual market that had opened-up in the UK. In the post-war period, developers were charged a 100% betterment tax (Crook, 2018). This meant that the uplift in value arising from development was captured and a landowner's return was capped at existing use value.

As such, whether the land was sold freely or was compulsorily purchased, the amount a landowner would receive was the same. When these changes were lifted in the 1950s - in part a response to a shortage of land coming forward and limited state funds to purchase plots - this created an inequity between those who received market and CPO compensation (Ibid).

Some have argued that this dual market presents challenges to reform of CPO powers, not least given successful legal challenges to the current CPO rules where landlords have felt they are being unfairly under-compensated (Crook, 2018). This legal wrangling rests on compensation levels and Crook (2021) notes that 'the European Convention on Human Rights (ECHR) defines compulsory purchase of property as not constituting a breach of rights if the public interest is pursued, paying compensation at existing use value may breach rights because the lack of financial equivalency may breach public interest and proportionality tests.'

Despite these challenges, reformed CPO powers could be used as a backstop in negotiations between the landowner and local authority. Where a landowner was holding back a plot of land of strategic value to secure a higher return, the threat of a local authority purchasing the land without their consent, at a potentially lower return, may induce them to bring it forward.

To overcome these challenges, we agree with the proposals of Murphy (2018) and Aubrey (2018) that Government should reform CPO powers to ensure that it removes this payment of hope value, instead offering a more limited, though fair, return for

landowners. This should be reserved for cases where the public interest can be proved, particularly in the case of meeting local housing need.

This approach would better balance the needs to avoid a dual market while ensuring that these powers work effectively to balance power in the land market.

Promote and enable local government to take an active role in the land market

Reforming CPO rules would also enable local authorities to take a more active role in local land markets. This is important, as local authorities should not just be seen as administrators of the planning system, but active participants in the land and development markets. Reformed CPO powers alongside other approaches would allow local authorities to take a more active role in land assembly.

It is common across Europe and in the US for local governments to utilise similar powers to purchase sites, front-loading infrastructure delivery and parcelling them for sale to developers (Falk, 2020). The uplift in land value between purchase and the sale of the land parcels funds the infrastructure investment, while the more active control over the site shapes what is delivered, achieving a greater supply of affordable housing and the delivery of more diverse forms of housing (Ibid).

At the same time, local authorities in England should be encouraged and supported to employ similar approaches used in other nations to parcel land and as a joint partner with private landholders.

Falk (2019) sets out the German experience as an exemplar, wherein local government pools land from a mix of private and public sources, uses its planning powers to grant permission for development having put in place the necessary infrastructure, and then shares back the uplifts flowing from the land proportionally amongst the owners, having taken off the costs the local authority has spent on the provision of this infrastructure (Greater South East energy Hub, 2021). Such an approach would be replicable in England and could see local authorities exerting much greater control over the nature of development.

Of course, local authorities would be embarking on this process from a standing start given that large scale municipal housebuilding has been limited in recent decades. As such, consideration will need to be given to the financial support available to local authorities to ensure they are sufficiently resourced to take such an approach and to ensure they can buy in the necessary skills and expertise.

This could be developed through a series of regional hubs, which could provide resources, support, and expertise to local authorities. This could follow a similar approach to Local Energy Hubs. Local Energy Hubs have been established by the Department for Business, Energy and Industrial Strategy to help catalyse local energy projects to promote the development of these sectors and the transition to net-zero[2].

By regionalising support in this way, individual authorities can draw on additional expertise without having to lay out the cost for buying it in individually. A similar approach that allowed local authorities to draw on expertise relevant to land assembly, development, and the mix of legal, financial, and technical elements involved therein could help to support and catalyse new approaches to local authority development.

Ensuring political accountability and transparency

The planning system provides an important democratic function. Localising the process of setting and administering the Infrastructure Levy places it in the hands of local councillors. This means that residents will have an immediate route to influence this process through local democratic systems.

At the same time, there is value in ensuring a degree of transparency and challenge to local leaders to ensure that levy rates, zones, and wider policies are being set in stretching yet realistic ways.

Set strict tests and benchmarks for setting Infrastructure Levy rates and thresholds

When local authorities come to set Infrastructure Levy rates it will be important to ensure this is a rigorous and accountable process. To support in rate setting, the Government should devise and share clear guidance and tools on rate setting to support local authorities and to harmonise approaches. This could be a default methodology or tool.

The levy-setting process should be part of the same public consultation that currently takes place with adopting a local plan. As part of this, local authorities should be provided with benchmark data from the planning inspector.

This benchmark should be based on default regional rates to be set by the central government. Where a local authority has not set a levy rate the policy would apply and refer to the default regional rate. When a local authority came to set their rate, they would be free to exceed the default regional rate but were they to set it at a lower level, they would have to prove the exceptional circumstances that make this necessary through the public consultation.

In setting regional rates, the Government could look to the residual land value estimates produced by MHCLG (2020c). These values are compiled using a residual land value approach (as used in this briefing) and are used for policy evaluation (Ibid). These currently do not factor in policy costs but could be adapted for this purpose.

Make transparency on levy receipts a requirement for local authorities

An oft-cited issue with the Section 106 system has been the paucity of information available on negotiations and their outcomes. As became evident in analysing the policy for this briefing, it is difficult to understand in any one local authority, region, or the country, how much revenue is raised through Section 106 or CIL and how these receipts are spent.

To overcome this, it should be a requirement for local authorities to collect, and for central government to collate, data on Infrastructure Levy revenues and expenditure, publishing this to inform a collective understanding of the performance of the policy.

Moving to an infrastructure first approach

Moving to an Infrastructure Levy system could, in setting a defined pot for infrastructure funding, force local authorities to make trade-offs between affordable housing delivery and the provision of other forms of infrastructure on site. This also has a regional dimension, with London, the South East and South West able to raise greater amounts than other parts of the country.

The ability of councils to pool resources across multiple sites and the application of the levy to non-residential and permitted development will give some flexibility in this regard and allow authorities to plan proactively to meet their infrastructure needs.

Despite this, it will be important for the Government to share the costs of delivering new infrastructure that supports house building with developers. To strike a balance between the role of development and central government in unlocking and enabling development, the Government must also target capital spending to meet infrastructure needs alongside developer contributions. This will be particularly important in areas where receipts from developer contributions are lower and therefore risk failing to cover the cost of essential infrastructure.

Several funding pots already exist. The Housing Infrastructure Fund (HIF) is designed to support developments that require funding to enable development or to support those with marginal viability. And, in their 2019 manifesto, this Government proposed the creation of a £10 billion Single Housing Infrastructure Fund (SHIF). This, it is claimed, will be part of an infrastructure first approach where 'roads, schools, GP surgeries – come before people move into new homes' (Conservative and Unionist Party, 2019).

Government should roll out the SHIF alongside these reforms, ensuring they work together and at the same time ensure that other capital funding programmes, for example in health and education, are managed effectively together to ensure a joined-up approach to supporting new development.

These funds should be integrated into wider plans to 'Level Up' and should explicitly recognise the differential ability of developer contributions to raise funds across English regions.

At the same time, it is important to recognise that the planning system alone cannot provide all the social and affordable housing that we need. Accordingly, the reformed levy must sit as part of a wider social and affordable housing strategy, which sets an ambitious target for social and affordable housing delivery and coordinates the various funding mechanisms for supply. This will be key in determining the role that the Infrastructure Levy plays alongside grant funding, and how different funding mechanisms are utilised across the country. It will also be important in promoting good outcomes in the shorter-term while these longer reforms are enacted and bedded in.

Methodological note

To compare the current system against the proposed Infrastructure Levy we have modelled several scenarios. This approach, based on work by Crook et al. (2015), derives the amount of money a developer could pay for land based on a simple, widely used formula:

Residual Land Value = Gross Development Value (GDV) – (Developer costs + Fees + Profits + Policy costs)

In doing this, it takes a cash flow approach, modelling costs over a 13-quarter development timescale.

The assumptions used are set out in the table below:

Build Costs	We use The Building Cost Information Service's (BCIS) data on average build costs, applied to a 90 square metre (sq. m.) home. In the regional examples, these are adjusted using BCIS' location index. We make some assumptions about the average site costs: Site works at 25% build costs. Professional fees at 12.5% build and site costs. Professional costs at 2% of build and site costs. Marketing and sales costs at 2% the value of the private units.
Developer profits	15% of total gross development value.
Finance costs	3.5% per annum.
Infrastructure Levy threshold	We assume build cost threshold is based on average build costs multiplied by the total size of the development (in sq. m.) We assume the land threshold is based on 10 x agricultural land values, based on MHCLG's residual land value estimates.
New Build Housing prices	To determine the average new build house price, we have used Office for National Statistics' UK House price data: quarterly tables 1 -19

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About the Joseph Rowntree Foundation

The Joseph Rowntree Foundation is an independent social change organisation working to solve UK poverty. Through research, policy, collaboration and practical solutions, we aim to inspire action and change that will create a prosperous UK without poverty.

We are working with private, public and voluntary sectors, and people with lived experience of poverty, to build on the recommendations in our comprehensive strategy - We can solve poverty in the UK - and loosen poverty's grip on people who are struggling to get by. It contains analysis and recommendations aimed at the four UK governments.

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