

# REVISITING THE ECONOMICS OF INCLUSIONARY ZONING

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## Revisiting the economics of inclusionary zoning

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## Contents

Inclusionary Zoning in Australia	1
Resistance to IZ	2
Purpose of this paper	3
The value capture diversion	3
Inclusionary Zoning and the scope of planning legislation	4
Inclusionary Zoning and allocative efficiency	5
A Brisbane case study	8
Impacts on housing supply and price	10
IZ and access to opportunity	12
Avoided social costs	14
Concluding remarks	15



## Inclusionary Zoning in Australia

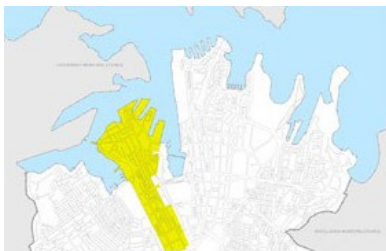
Inclusionary Zoning (IZ) generally refers to statutory planning controls requiring development proponents to incorporate certain facilities or features on their site, or pay a cash-in-lieu contribution for this obligation to be discharged off-site. Traditionally, inclusionary provisions were applied to car parking requirements and open space contributions. More recently, requirements to incorporate a certain proportion of affordable housing in a development project, or make a cash contribution for an equivalent quantum and standard of affordable housing to be provided elsewhere in the neighbourhood in question, have been contemplated and, in some cases, implemented, in Australian town planning practice.

The longest running IZ scheme in Australia applies in Sydney's Ultimo Pyrmont urban redevelopment precinct. This former industrial/port district in the inner city was the subject of a State and Commonwealth 'Building Better Cities' initiative in the early 90s, under which a targeted amount of affordable housing would be maintained in the neighbourhood as it transformed into an otherwise exclusive area for well remunerated 'knowledge workers'. A special purpose, not for dividend company – City West Housing Ltd – was created by the State Government to own, operate and, where necessary, build the targeted affordable housing. The requisite housing was to be procured via a one off Better Cities capital grant from the Commonwealth, an agreed proportion of the value of State Government land sales in the precinct and the proceeds, both cash and in kind, from the Inclusionary Zoning scheme applying in the area.

In its latest version, the City West IZ scheme requires developers to provide affordable housing at a rate of 0.8% of the total floor area to be used for residential purposes and 1.1% of the total floor area that is not intended to be used for residential purposes. In 2009/10, the cash in lieu rates were \$26.40/m<sup>2</sup> for residential development and \$37.95/m<sup>2</sup> for non-residential development. City West Housing Ltd reported IZ cash contributions from developers of some \$47 million in the 2013/14 financial year (including contributions from an additional nearby urban renewal precinct known as 'Green Square').

The target set on the launch of the City West Affordable Housing Scheme in 1994 was that some 600 dwellings would be acquired in Ultimo Pyrmont over 30 years as permanently affordable rental stock for very low, low and moderate income households. This target has already been met.

FIGURE 1 CITY WEST AFFORDABLE HOUSING (ULTIMO PYRMONT)



Source: City of Sydney<sup>1</sup>

1 (<http://www.cityofsydney.nsw.gov.au/development/planning-controls/affordable-housing-and-development-contributions>)

## Resistance to IZ

Notwithstanding this long standing (and seemingly successful) NSW experience with mandatory IZ on private land, there continues to be deep-seated resistance to this planning mechanism in most Australian jurisdictions<sup>2</sup>. This is particularly so in Victoria, which is a focus of this paper.

Several factors appear to lie behind this resistance. Some critics of IZ see it as a 'lazy' public policy response to the affordable housing crisis, arguing that we should be looking first to address the inefficiencies in the permit approval process, and create greater certainty for developers – thereby reducing costs – before adding another layer of complexity to the planning system. Others make the point that the provision of non-market or subsidised housing has traditionally been part of the national tax transfer system and should remain that way. Development industry lobbyists, like the Property Council of Australia (PCA) rest their opposition on two points; that IZ is an unfair implicit tax on one group in the housing market to assist another; and IZ can only ever produce a trickle of affordable housing versus the scale of unmet need.<sup>3</sup>

Still others see IZ as an unwarranted, unjustifiable and objectionable curtailment of private development rights. This is exemplified in a public statement by Councillor Stephen Mayne of the City of Melbourne when deliberating on an officer recommendation for the introduction of IZ in that municipality. At a Council Committee meeting held in December 2014, Councillor Mayne said..

*“My personal view is that this is a fundamental property rights question...that if you are a private owner of land and you **(the Council)** come in and mandate that a certain amount of that development cannot be commercial, that is actually quite a moving of the goal posts and quite a change in property rights of individual property owners.”<sup>4</sup>*

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2 A form of inclusionary zoning is applied in SA. All 'significant projects', including developments on government land, major developments and private developments that are bound by the SA development plan policy for Affordable Housing, must include 15% 'affordable housing' comprising dwellings which are 'offered for sale at or below a nominated affordable price point (currently \$288,000), sold to eligible low to moderate income earners (up to \$75,000 for singles, up to \$95,000 for couples and families) or affordable rental providers and subject to a legally binding agreement that ensures these requirements are met'. (See <https://www.sa.gov.au/topics/housing-property-and-land/industry-professionals/planning-professionals/developer-responsibilities-for-affordable-housing>)

The SA scheme is best seen as a mandatory requirement to diversify price points in major developments. It does not guarantee that these developments will permanently feature a certain proportion of housing accessible to households in the bottom 40% of the income distribution. In this sense, it is not comparable to the Ultimo Pyrmont scheme which is the model of IZ of interest in this paper.

3 Elliot, R. (2007) Myth #9: Inclusionary zoning fixes unaffordable housing? Published on-line by the Property Council of Australia <https://www.propertyoz.com.au/sa/Article/Resource.aspx?p=21&media=456>

4 <http://www.melbourne.vic.gov.au/AboutCouncil/Meetings/Pages/2December2014,530pmviewdetailsaiddocuments.aspx> (text in bold added)

## Purpose of this paper

This paper revisits the public policy merits of IZ. In doing so, a conservative perspective is taken on both the arguable scope of planning regulation and the appropriate application of economic principles in appraising net community benefit. Even within this narrow frame, the paper finds that adoption of Ultimo-Pyrmont style IZ in Melbourne (and, indeed, elsewhere) has considerable prima facie merit. The substantive paper begins with the questions of what might be the readily defensible domain of planning regulation and whether the mandatory provision of affordable housing falls within this scope. The discussion then turns to the standard economic tests of whether IZ is warranted in terms of allocative efficiency.

However, before setting off on this discussion, some commentary on an additional economic perspective on IZ is warranted. This relates to IZ as a legitimate exercise in value capture by government.

## The value capture diversion

The rationale in economic theory for value capture is clear enough. Regulation of development rights in the interests of creating more efficient and sustainable settlement patterns necessarily confers quasi monopoly rights on the holders of planning approvals for higher density housing, retail projects, commercial buildings and so on. That is, once they have secured a permit or licence to develop on a particular site, proponents have privileged access to conduct the (development) business in question; competitors must negotiate the costs and uncertainty of the approval system in order to contest their market. Left untaxed, this privileged market position and the associated monopoly rents will be capitalised into higher land values. In other regulated markets – taxis, forestry, fisheries, broadcasting etc – the State typically charges a licence fee for access to the quasi monopoly rights in question. Logically, this should also apply in respect of rezoning and the granting of planning permits for higher order uses. In some jurisdictions, for example the UK, the objective of sharing planning gain with the wider community is recognised in legislation. Indeed, provision for the taxation of 'betterment' was explicitly included in Victoria's planning legislation from its inception till 1987 when the Planning and Environment Act replaced the (British derived) Town and Country Planning Act.

IZ could be seen as a de facto method for extracting development licence fees from land owners and proponents otherwise enjoying monopoly rent windfalls from planning regulation. While this is robust logic to an extent, it has not been pursued in this paper because there is no reason, in principle, why uplift in land value should be channelled into affordable housing rather than any number of other worthwhile deployments of planning gain, including an improved public domain.

Value capture may also be justified where public agencies invest in transport infrastructure and major amenity upgrades. Even with full user pricing of infrastructure, there are likely to be positive externalities from such investments which will also be capitalised in land values. Again, however, there is no particular reason to associate a warranted tax on this windfall with the provision of affordable housing.

In any case, as is shown below, it is not necessary to rely on value capture theory to make an effective case in economics for the adoption of IZ. Indeed, it can reasonably be argued that value capture and IZ requirements should be additive obligations on development or land holders, together with user pays contributions for local infrastructure which will serve the development in question.<sup>5</sup>

<sup>5</sup> For further discussion see Spiller (2012) Land Management and Planning Legislation in, K. Wellman, M Spiller (eds), 2012 Urban Infrastructure: Finance and Management, Wiley-Blackwell

## Inclusionary Zoning and the scope of planning legislation

Returning to Councillor Mayne's declaration of opinion, the fact that planning controls may cause a proponent to undertake a less than commercially optimal project, versus a laissez faire scenario can hardly be seen to be a 'moving of the goal posts'. After all, developers are routinely required to comply with heritage controls, parking requirements, height limits and many other design and land use mix requirements which they would gladly set aside for greater commercial gain were they to be afforded the opportunity. Perhaps the true concern underlying Councillor Mayne's objection to IZ is that the proponent is being required to perform a redistributive task (i.e. housing lower income or disadvantaged people) that lies outside the province (beyond the goal posts) of planning controls.

This is unconfirmed speculation on our part. Nevertheless, the postulated concern that redistribution is 'out of bounds' as an object for land use and development controls sparks a useful line of enquiry about the legitimate scope of such regulation.

There are no definitive authorities on this question. Of course, one could resort to what the planning regulation actually says and how the courts have interpreted these words. This is useful to a point. The problem is that legislative statements on 'what planning is about' are inevitably broad, touching on all aspects of the now widely cited goal of 'sustainable development'.

Espoused scope in legislation probably needs to be interpreted in the context of a wider public policy discourse, covering, for example, the principle of subsidiarity that is implicitly adopted in the Australian constitution and contemporary social contract. As alluded to above, there may well be a reasonable case to object to the use of planning controls to advance redistributive objectives when redistribution is the core public policy territory of the Commonwealth Government and its tax/transfer system.

Moreover, the appropriate scope of planning regulation probably needs to be contemplated in the context of an implied national consensus, or détente at least, about the partitioning of efficiency and equity goals in public policy.

Arguably, this separation between the efficiency and redistribution agendas of governments is the continuing and influential legacy of the nation's great 'micro-economic reform' movement of the 80s – a movement which many commentators have characterised (pejoratively) as Australia's descent into neo-liberalism. We make no judgement on this label here, but we note that a prime focus of micro economic reform was the dismantling of implicit redistribution through regulation (e.g. officially regulated rather market determined utility prices) and subsidised supply of government owned services in favour of more transparent transfer arrangements. Growing the income cake was clearly distinguished from debates about how the cake was to be shared. Such separation was supposed to facilitate greater accountability in the merits of redistributive arrangements, and lead to better targeting of welfare assistance.

Taking on board subsidiarity in the allocation of policy making competencies across governments as well as the continuing hegemony of micro-economic reform thinking, planning regulation would be confined to an economic or 'allocative'



efficiency remit rather than redistribution.<sup>6</sup> That is, planning regulation would be limited to mitigating externalities in the use and development of land. Meanwhile, redistribution would be the province of other community mandated programs, principally in the tax transfer system as noted. In the case of affordable housing for those in the bottom half of the income spectrum, such redistribution would be the exclusive domain of social housing investment programs and income supplement schemes such as Commonwealth Rent Assistance.

This is not to deny that planning regulations, in common with a great many other forms of regulation, will have a multitude of redistributive consequences. The point is that through the micro-economic reform lens, redistribution is not an expressed purpose of planning regulation.

If, for the purposes of discussion, this is the point of departure regarding the role of planning legislation, the public policy merits of IZ need to be judged against a two part test:

- Firstly, is IZ within the scope of planning regulation? That is, can IZ be seen to be mitigating externalities in the use and development of land?
- Secondly, if IZ is within scope, is it efficient? That is, will it generate a net community benefit compared to a scenario where IZ is not applied?

Within this frame, the fact that IZ may have a redistributive effect is, perhaps paradoxically, immaterial. Under the Kaldor-Hicks efficiency rule, the key question is whether the value of gains for those benefitting from this regulation is greater than the value of losses from those disadvantaged by the intervention. Where the beneficiaries sit in the income distribution is largely irrelevant.

## Inclusionary Zoning and allocative efficiency

So, is IZ within the scope of planning? The answer to this question would seem to be a clear 'yes'.

Planning regulation is necessary in the first instance because the use and development of land generates externalities, both positive and negative. Externalities are uncompensated (or un-rewarded) impacts incurred by third parties as a result of market transactions. The transacting parties can be assumed to make their buying and selling decisions in their own best interest. If there were no externalities at all, market transactions could generally be trusted to produce an optimal community-wide use of land resources.<sup>7</sup> Where externalities are present, regulation (or some other measure, like corrective pricing or allocation of property rights) is necessary to make sure that transacting parties take into account all the cost and benefits of any particular land use proposal, not just the outlays and returns they face in consummating their deal.

The reason different planning rules apply to different land uses and development types is that externalities are judged to vary between them. For example, large shopping centre proposals are generally treated differently in terms of where and when they can locate compared to small shop development proposals because their external effects, in terms of travel efficiency on the part of customers, the demands placed on shared infrastructure and the creation of blighting effects through market crowding, differ significantly.

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<sup>6</sup> See Spiller (2012) Op cit

<sup>7</sup> Assuming no monopoly distortions

Importantly, planning regulation is not just about mitigating the negative spillover effects of land use and development, though this may have been the original impetus for law making in this area. Today, planning regulation also seeks to optimise positive externalities, such as synergies between compatible land uses and the creation of ‘orderly’ or ‘logical’ patterns of urban development which will facilitate the efficient provision of public goods like roads, parks and watercycle infrastructure.

In terms of its external impacts, ‘affordable housing’ – defined here as housing permanently available at an affordable rent to households in the bottom two quintiles of the income distribution – can be clearly distinguished from other forms of housing. If this is accepted, and it appears to be given the separate references to ‘affordable housing’ as a distinct land use within the statutory planning framework for Victoria, different regulatory rules in relation to affordable housing, and on other land use and development types that impact on affordable housing, are warranted on the same efficiency grounds which underpin planning regulation generally.

The distinct external impacts of affordable housing are threefold (Table 1). Firstly, in some neighbourhoods, social diversity is a recognised and valued environmental characteristic. Under Victorian planning law, social characteristics and effects must be given equal weighting with other environmental effects when planning authorities are constructing planning rules.<sup>8</sup> If successive developments in a diverse neighbourhood have the effect of diluting that diversity, there is a demonstrable diminution of a valued (social) environmental quality, that is, a loss of welfare. On the face of it, this dilution of diversity ought to be compensated by the proponents of development which is giving rise to this effect, unless the off-setting benefits (improvements to community welfare) from these successive developments outweigh the cost.

TABLE 1 EXTERNALITIES GENERATED WHEN DISTRICTS DEVELOP WITHOUT AFFORDABLE HOUSING, OR WHEN EXISTING AFFORDABLE HOUSING IS DISPLACED

Externality type	Elaboration
<b>Type 1:</b> Loss of existing social (or cultural) environmental value	Diverse neighbourhoods may be recognized as offering particular (social) environmental values, in terms of cultural vitality, hospitality offer, retail mix and capacity for innovative business formation.
<b>Type 2:</b> Foregone benefits of social mix in new or gentrified neighbourhoods	The broader community, not just lower income groups, may benefit in health and wellbeing terms from local social mix.
<b>Type 3:</b> Foregone human capital and higher social expenditures	If affordable housing is not reserved in new or redeveloping districts which are relatively well connected to opportunity, spatial marginalization of lower income and disadvantaged groups will be worsened, leading to foregone human capital and higher palliative and correctional social expenditures.

Source: SGS Economics and Planning Pty Ltd

<sup>8</sup> Until recently, Section 12 of the Planning and Environment Act specified that in preparing an amendment to a planning scheme, a planning authority must take into account significant environmental effects and may take into account social and economic effects. Under amendments made in June 2013, planning authorities are now required to take into account social and economic effects as well as traditionally defined environmental factors when making planning schemes.

Secondly, social mix can be seen as an essential requirement for 'sustainable development'. Here, the hypothesis is that quality of life and wellbeing are enhanced if people transact their citizenship in diverse communities rather than polarised districts. Health outcomes, engagement in civic process and social capital building are supposed to be superior for rich and poor alike in mixed communities. The research base for such beliefs is still in its formative stages.<sup>9</sup> Nevertheless, the hypothesis is implicitly endorsed in legislation given that goals for the achievement of 'diverse communities' are prominent across the spectrum of planning policy statements across the State, regional and local domains in Victoria.

The third and final category of externality associated with the displacement, or non-provision, of permanently affordable housing in well serviced locations as the city develops relates to the geographic marginalisation of low income and at risk groups. Here the research evidence is stronger that concentration exacerbates disadvantage and diminishes the potential for involvement in training and work.<sup>10</sup> This implies higher social expenditures and wastage of otherwise productive human capital.

Against this background, we can say that if an area is allowed to develop without sufficient diversity it will, in time, generate adverse externalities in terms of the foregone benefits of cohesion and extra social expenditure costs. A relevant analogy could relate to allowing a neighbourhood to progressively develop without sufficient open space or with a poorly articulated road network. External costs would ultimately arise, most likely causing a net community disbenefit.

Within this framework, special regulatory rules in the planning system for the provision, protection or inclusion of affordable housing in development areas are strictly justified on mitigating negative externalities and optimising positive externalities in the efficient use of land. That is, they are warranted on economic efficiency grounds, in an endeavour to create the optimal net community benefit from urban development. They ought not to be confused with a redistributive mechanism, even though the resultant affordable housing would be systematically benefitting lower income groups.

If cast in this way, requirements to include affordable housing in developments cannot be construed as a redistributive tax, just as, for example, the requirement on the owners of heritage properties to forego the value of development potential that would otherwise be available to them cannot be seen as a tax.

It is noteworthy that this conclusion has been reached by policy analysts and legal advisers in a recent review of potential planning mechanisms to be applied in Auckland in support of affordable housing provision. New Zealand's Resource Management Act (1991) was a major, and early, policy initiative in that country's own micro-economic / neo-liberal reform effort. In fact, it could be claimed to be a 'pure', uncompromising and perhaps extreme manifestation of the principle that town planning law should concern itself simply with mitigating externalities in land use and development. Under the RMA, approval (or not) for development would be judged not in terms of compliance with an arbitrary plan or vision, but rather whether the case in question delivers a net community benefit.

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<sup>9</sup> SGS Economics & Planning Pty Ltd (2013) Understanding the social outcomes of housing: A report prepared for the City of Melbourne. ([http://participate.melbourne.vic.gov.au/files/7714/1257/3673/COM\\_SERVICE\\_PROD-\\_7709312-v1-20120348\\_understanding\\_the\\_social\\_outcomes\\_of\\_housing\\_final\\_report\\_020213.pdf](http://participate.melbourne.vic.gov.au/files/7714/1257/3673/COM_SERVICE_PROD-_7709312-v1-20120348_understanding_the_social_outcomes_of_housing_final_report_020213.pdf))

<sup>10</sup> *ibid*

Notwithstanding this abandonment of vision based planning (which has since been corrected), the RMA appropriately defined environmental impacts broadly, to include social and cultural effects as well as outcomes in the built and natural environments. Accordingly, the aforementioned policy analysts and advisers found that IZ *“is a tool that is possible under the Resource Management Act, provided it can be shown to promote sustainable management of the Auckland’s resources”*.<sup>11</sup>

Thus, a strong case can be made that IZ is squarely within the scope of planning regulation, simply by reference to the externality impacts of affordable housing.

The second test therefore comes into play – is IZ an efficient regulation of land use and development? That is, can it be relied upon to generate a net community benefit?

Interestingly, once IZ is sanctioned as a legitimate planning intervention, assessment of its economic merits must consider all allocative impacts, not just those relating to land use and development. This is general requirement of regulatory impact assessments.

## A Brisbane case study

An unpublished study conducted by SGS in 2004, for the then Qld Department of Housing, scoped the costs and benefits of a proposed IZ scheme to apply in an inner urban district of Brisbane. This scheme targeted the retention of the affordable (rental) housing stock in this district at approximately 6% as shown in Table 2.

TABLE 2 TARGETTED HOUSING OUTCOMES – PROPOSED IZ SCHEME FOR INNER CITY BRISBANE (2004)

	Without IZ regulations			With IZ regulations	
	2001	2016	Change 01-16	2016	Change 01-16
A. Social housing units	1,370	1,370	-	2,953	1,583
B. Affordable private rental units	990	600	-390	600	-390
C. Total affordable housing stock	2,360	1,970	-390	3,553	1,193
D. Total housing stock	38,000	57,300	19,300	57,300	19,300
C/D	6.20%	3.40%		6.20%	

Source: SGS Economics and Planning Pty Ltd (2000) unpublished

The SGS analysis assumed that while dwelling prices would be pushed up by 5% as a result of the IZ scheme, there would be negligible impacts on housing production. The costs and benefits (versus a base case of no IZ regulations) were identified by SGS as per Table 3. A number of the effects were seen to cancel each other out (A versus F; D versus G; E versus J).

The remaining effects were quantified and monetised using a variety of methods:

- Effect (B) quantified with advice from Brisbane City Council (BCC) on scheme development costs
- Effect (C) quantified with advice from BCC on scheme operating costs

<sup>11</sup> <http://www.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/unitaryplan/Documents/unitaryplanaddendumrub.pdf> (2013)

- Effect (H) quantified by community willingness to pay for avoidance of housing stress induced social dysfunction/health costs, as evidenced in capitalised rent rebates in the existing social housing stock
- Effect (I) quantified by assuming that lower income households accommodated in job rich inner city locations would converge on the average propensity to engage in employment and training as distinct from the sub-average engagement shown in outer suburban public housing estates.

Effect (K), while conceptually important was not quantified and monetised.

TABLE 3 COSTS AND BENEFITS OF BRISBANE IZ SCHEME

Marginal costs	Marginal benefits
(A) Loss of value of preferred housing services for those displaced from the inner city market due to redistribution of units into the social housing stock	(F) Gain in housing services value by those social housing clients now accommodated in the inner city
(B) Additional costs incurred by authorities in developing the IZ scheme	(G) Avoided future litigation costs because of greater clarity in planning powers for IZ
(C) Additional costs incurred by authorities and development proponents in operating the IZ scheme	(H) Reduced health and social program costs as a result of stable and higher quality housing for 1,583 low income households (by 2016)
(D) Additional costs incurred in court reviews of IZ determinations	(I) Improved labour productivity amongst lower income households because of access to secure and well located accommodation
(E) Operating costs incurred for the additional social housing units generated by the IZ scheme	(J) Saved private sector rental operating costs
	(K) Retained environmental value of social diversity in inner Brisbane

Source SGS Economics and Planning Pty Ltd (2000) unpublished

This Brisbane analysis is best regarded as a pilot study exploring how a conventional welfare economics evaluation (otherwise known as a regulatory impact assessment) might be applied to IZ. It drew on limited empirical data and was required to apply several assumptions, albeit plausible ones.

Nevertheless, this preliminary analysis found that the IZ scheme would deliver a substantial net community benefit with a benefit cost ratio of more than 7:1 (Table 4). Governments typically look for benefit cost ratios of 1.5:1 and above when endorsing regulatory or project initiatives for further deliberation and implementation.

TABLE 4 COST BENEFIT ANALYSIS – INNER BRISBANE IZ REGULATIONS

Costs	Present value (2004 \$m)
Policy formulation	\$0.10
Compliance	\$7.10
Total	\$7.20
Benefits	
Human capital / labour productivity	\$8.00
Health & social program savings	\$45.20
Retention of environmental value (diversity)	not quantified
Total	\$53.20
Benefit Cost Ratio	7.4:1
NPV	\$46.0m (6% real discount rate)

Source: SGS Economics & Planning Pty Ltd

## Impacts on housing supply and price

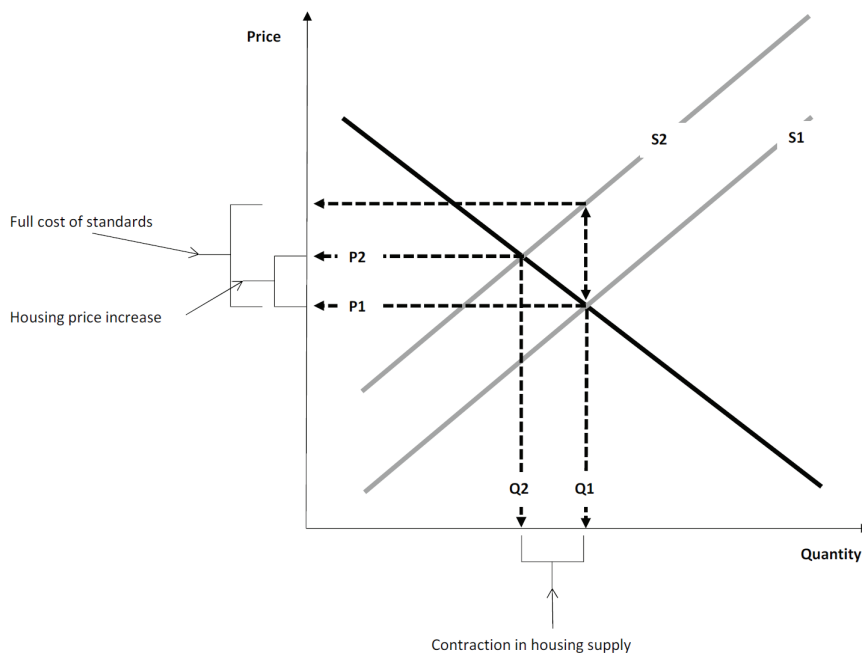
In large part, the strong benefit cost ratio in the Brisbane case study rested on the assumption that the IZ initiative contemplated for that city would have a negligible cost in terms of housing supply.

While there was no opportunity to undertake specific studies of supply side impacts in Brisbane, there is a sound basis in theory for making the assumption of negligible market disruption. Moreover, some limited empirical evidence generated from another Australian city (Melbourne) since the Brisbane case study provides further comfort that this working assumption is reasonable.

Basic theory suggests that the cost of any regulatory impost on housing production will only partly translate to diminished supply and higher housing prices, depending on the elasticity of demand.

This is illustrated in the following chart. Additional development costs associated with IZ are shown in a leftward shift in the supply curve (from S1 to S2). For any given quantity of housing supply, developers will require a higher price to cover the additional costs associated with the regulation in question.

FIGURE 2 IMPACT OF IZ ON HOUSING PRICE AND QUANTITY



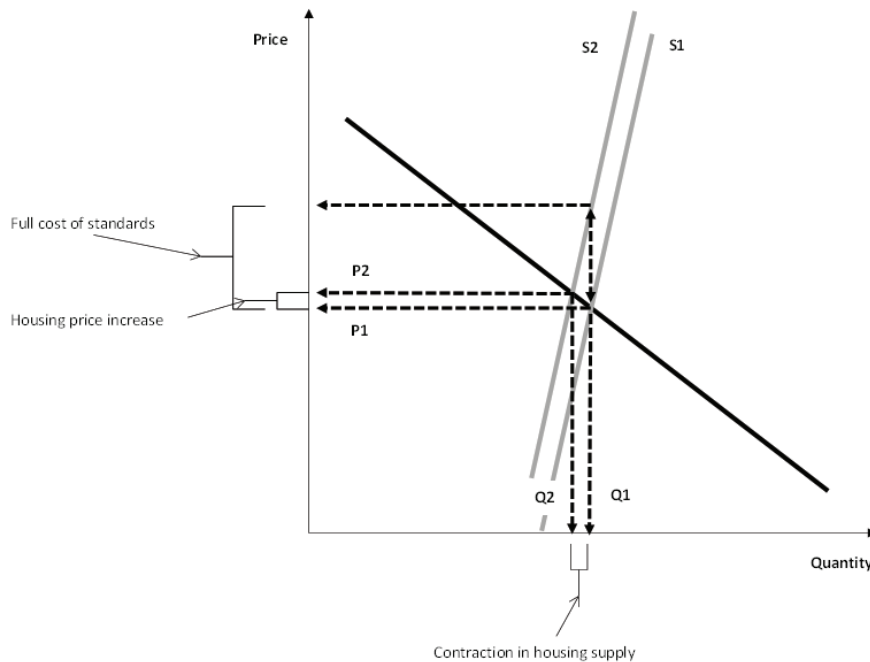
Source: SGS Economics & Planning Pty Ltd

With this leftward translation of the supply curve a new equilibrium price is established (P2 up from P1), and housing supply into the market contracts from Q1 to Q2. Note that the increase in price is less than the full amount of the cost impost represented by the new regulations.

Moreover, it is evident that the extent to which regulatory costs are passed forward depends on the slopes, or price elasticities, of the demand and supply curves.

If supply is relatively insensitive to price, that is, supply is inelastic, a smaller contraction in delivered housing might be anticipated. Moreover, the boost to housing prices would be a smaller proportion of the cost of the regulation. This is illustrated in Figure 3, which shows the same regulatory cost quantum as in Figure 2 but operating in the context of highly inelastic supply.

FIGURE 3 IMPACT OF IZ ON HOUSING PRICE AND QUANTITY – WITH INELASTIC SUPPLY



Source: SGS Economics & Planning Pty Ltd

As reported by the now defunct National Housing Supply Council and others, housing supply in Australia is generally understood to be inelastic.<sup>12</sup>

This theoretical case is sufficient to debunk claims cited earlier that IZ represents a zero sum burden on suppliers of housing; that is, that the cost of meeting the mandated on-site quota of affordable housing is simply transferred as a price premium to others buying into the project in question.<sup>13</sup> In fact, it is quite likely that much of the implied cost will be passed backwards to sellers of development sites or absorbed in marginally compressed development margins.

Notwithstanding this outworking of theory, common sense suggests that the impact on housing supply will be dependent upon the magnitude of the IZ requirement; a 5% requirement will have different effects to a 15% or 20% requirement. Here, a separate assessment of IZ impacts commissioned by a group of inner Melbourne councils<sup>14</sup> is instructive.

In 2007 the IMAP Councils developed an IZ proposal which aimed to maintain social housing at its 2006 level, in proportional terms, in central Melbourne with planning contributions providing half the required capital.<sup>15</sup>

<sup>12</sup> See, for example, Xiangling Liu and Glenn Otto (2014) Housing Supply Elasticity in Sydney Local Government Areas, UNSW Australian School of Business Research Paper No. 2014 ECON 13

<sup>13</sup> Elliot, R (2007) Op Cit

<sup>14</sup> The Inner Melbourne Action Plan (IMAP) group of Councils comprises the municipalities of Melbourne, Port Phillip, Stonnington, Yarra and Maribyrnong.

<sup>15</sup> SGS Economics & Planning Pty Ltd (2007) An Affordable Housing Overlay in the Victoria Planning Provisions; Implementation Model for Melbourne's Inner Urban Region, published by IMAP

This work was peer reviewed by property advisory firm BIRUU Pty Ltd. The peer review concluded that a cash in lieu rate of some \$30 per square metre (for all development types) would be required to maintain the 2006 ratio of social housing provision in central Melbourne, which BIRUU had estimated to be 5.9%.<sup>16</sup>

Of particular interest here was BIRUU's consideration of the likely impact of IZ provisions on the financial viability of various project types, including a 5,000m<sup>2</sup> commercial office development with pre-commitment to tenant on a cleared site and demolition of 1,000m<sup>2</sup> warehouse and construction of 15 new 2BR apartments (90m<sup>2</sup> each). A range of cash in lieu scenarios were tested for this purpose, including rates at \$10/m<sup>2</sup>, \$20/m<sup>2</sup>, \$30/m<sup>2</sup> and \$50/m<sup>2</sup>. In terms of the commercial office development, BIRUU reached the following conclusion:

*"We do not consider that the any of these scenarios would be significant (in their impact on viability), or even detectable above the 'noise' in this scenario when a tenant has been pre-leased to the building. .... For example there is less than a 1.3% change in the highest scenario." (page 27)*

With respect to the residential development case study, BIRUU reported that:

*"We do not consider that the increase in purchase cost of approximately \$3000 per unit would be material in the market as it represents less than 1.1% of the unit's value (in the highest scenario) and likely to be swamped by other unrelated factors (i.e. inflation, land costs, building costs, location, taxes)." (page 30)*

## IZ and access to opportunity

The favourable net community benefit result in the Brisbane pilot study also reflected the substantial value of improved productivity - or uplift in human capital - amongst low income and disadvantaged households otherwise locked out of training and job opportunities by virtue of poorly located accommodation (Table 4). The analysis essentially relied on a 'what if' scenario to ascribe a value to this uplift, namely that 1 person from each newly accommodated household participates in training every 3 years and receives a wage premium of \$5,000 (2004 prices) each year over a 10 year period as a result, representing the margin between skilled and unskilled remuneration rates. The present value of this boost to human capital was calculated as \$36,800 versus a present value cost of additional training of \$21,800, indicating a net benefit of \$15,000 per household each 3 years.

Unfortunately, there was at the time of the Brisbane pilot study, and continuing to this day, a paucity of longitudinal research by which to judge the robustness of the human capital uplift scenario. Future research mining the data from the ABS's *Household, Income and Labour Dynamics in Australia (HILDA) Survey* may help to correct this.

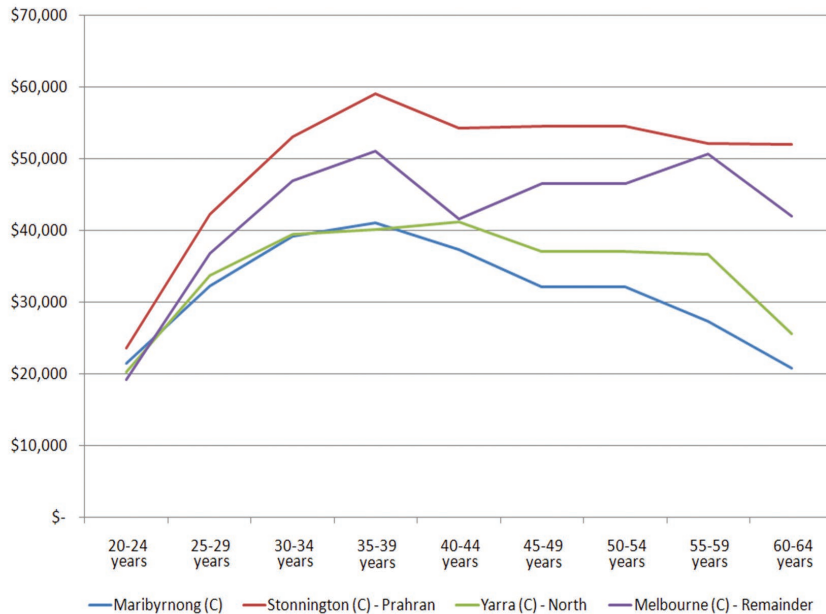
In any case, cross-sectional data from the ABS census provides some support for the working assumption made in the pilot study. For example, SGS studies of earnings by location, age group and skill level in Melbourne shows that workers without formal trade qualifications or post-secondary schooling tend to enjoy higher incomes if domiciled in suburbs with relatively high 'effective job density (EJD)' (Figure 4). EJD indicates the number of jobs available locally plus those located elsewhere divided by the travel time in getting to them from the subject location.

<sup>16</sup> Biruu Australia Pty Ltd (2008) Advice on the Issues of the Inner Region Affordable Housing Overlay, consultancy report prepared for the Inner Affordable Housing Working Group comprised of representatives from City of Melbourne, City of Port Phillip, City of Stonnington and City of Yarra



This suggests that workers located in areas with superior jobs access are more likely to be regularly employed, and engaged in better jobs, because of exposure to both formal and informal (on the job) learning opportunities.

FIGURE 4 GROSS ANNUAL INCOME PER CAPITA, MEN UNQUALIFIED



Comparative Effective Job Density (EJD) Maribyrnong (C) = 1.0, Yarra (C) - North = 1.4, Melbourne (C) - Remainder = 1.9, Stonnington (C) - Prahran = 2.1.

Source: ABS 2011 Census data, SGS calculations

To the extent that there is link between access to jobs and engagement in work, it is clear (and disturbing) that housing markets in Australia’s major cities are increasingly confining lower income households to areas remote from employment and training opportunities. There is clear evidence of this in Melbourne.

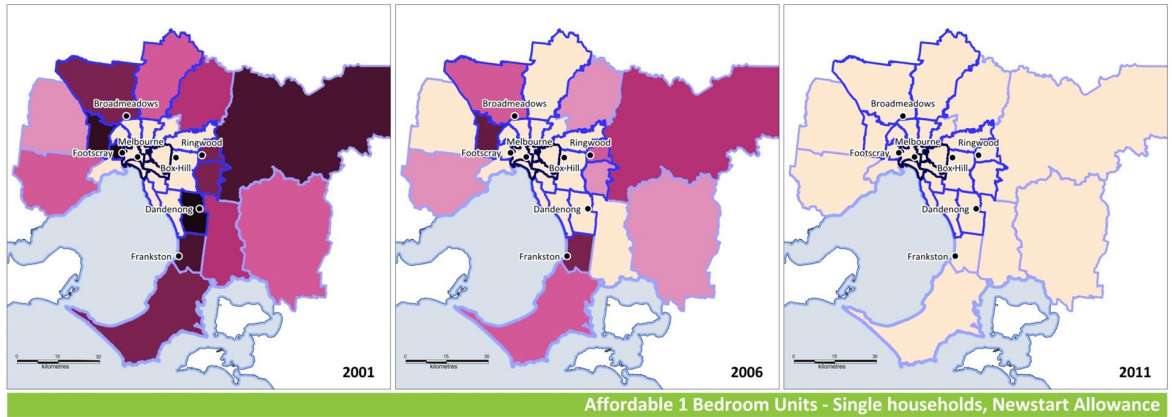
SGS has rated each neighbourhood in greater Melbourne according to the proportion of all jobs in the metropolitan area that can be accessed within a 30 minute drive in the morning peak. In this context, it is important to note that access to jobs is a proxy for access to wider opportunities, because one person’s job is another’s service, including in education, health and recreation.

The charts in Figure 5 group Melbourne’s neighbourhoods into 3 categories – those with excellent access to opportunity (that is, able to reach more than half of all metropolitan jobs within a half hour drive), medium access to opportunity (10% to 50% of jobs accessible within 30 minutes) and low access (fewer than 10% of jobs accessible within 30 minutes).

The charts in Figure 5 also show the availability of affordable housing opportunities for a benchmark single person household on Newstart over the decade to 2011, categorised according to access to opportunity. This includes allowance for Commonwealth Rent Assistance.

Affordable housing for this household group has all but disappeared across the metropolitan area, even in those areas that have very poor access to jobs, training and other opportunities.

FIGURE 5 NUMBER OF 1 BEDROOM UNITS WHICH ARE AFFORDABLE TO SINGLE PERSON HOUSEHOLDS ON NEWSTART ALLOWANCE



Source: SGS Economics & Planning Pty Ltd

## Avoided social costs

A comparatively large benefit factored into the Brisbane pilot study concerned the avoided social expenditures (health, crime, family support etc) achieved by accommodating otherwise marginalised households in well-resourced locations. As mentioned, the value of this benefit was proxied by the capitalised rental rebate provided to the households in question via the social housing system.

This is robust to a point; it reflects actual rather than imputed community willingness to pay to avoid social dysfunction (or to capture the benefits of social inclusion). It is open to critique on the basis that capitalised rebates per household reflects average (historic) willingness to pay, rather than marginal willingness to pay to add more people to the 'properly housed' segment of the population.

Again, more research is required in this area. It is interesting to note the recent findings of Bentley and Baker who, using HILDA longitudinal data, have demonstrated a causal link, not merely an association, between housing unaffordability and diagnosable mental health conditions particularly for people in the bottom two income quintiles.<sup>17</sup>

<sup>17</sup> Bentley, R. and Baker, E. (2015) Moving beyond association: Developing causal explanations of housing and health, paper presented to the Australian Housing Researchers Conference, Hobart, February 19.

## Concluding remarks

Although mandatory IZ on private land has been successfully applied in Sydney for decades, there is continuing resistance to its adoption in other jurisdictions, including Victoria.

This resistance may reflect a perspective that, as a redistributive initiative, IZ has no place in the development control system.

However, it is possible to frame IZ as a purely efficiency focussed intervention in land and development markets. That is, IZ is required to, firstly, mitigate the loss of environmental value when historically diverse areas become less diverse over time due to the development process and, secondly, to ensure that new urban development avoids the social dysfunction and foregone human capital when affordable housing is not provided in areas with good access to opportunity.

The limited evidence available suggests that modest IZ schemes, such as that applied in Ultimo Pyrmont in Sydney would have negligible effects on housing markets and are likely to generate a substantial net community benefit. They should therefore be supported as efficiency enhancing planning interventions.

This is not to say that IZ can, in any way, represent the 'solution' to the affordable housing challenge. Here, we agree with the PCA.<sup>18</sup> Modest schemes can only ever play a supplementary role, principally by improving the spatial distribution of affordable housing for low and very low income households. Were IZ to be set at more 'burdensome' levels than the benchmarks established by the Ultimo Pyrmont scheme and that proposed by IMAP in 2007, the efficiency merits of such interventions might be brought into question.

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18 Elliott, R. (2007) Op cit

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