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Urban, Housing, Planning and Transport Studies

AFFORDABLE HOUSING LEVY – IMPACT ANALYSIS

Final Report

Ref: PPM-2008-RK07

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for

City of Sydney

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This report has been prepared for

City of Sydney

in accordance with the relevant project brief.

The report has been prepared exclusively for the use of the client(s).

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EXECUTIVE SUMMARY

Aim and Limitations

- The aim of the current study is:
  - to undertake a literature review with a view to identifying the various forms of affordable housing levy in general and their possible impacts; and
  - to model the impact of an affordable housing levy, set at a variety of different rates, on housing affordability and housing supply in the area and on the other categories of development that may be affected.
- There is at the present time great uncertainty surrounding the economic and financial prospects for Sydney, NSW and Australia. Moreover future developments in housing policy at the Commonwealth and State government levels and the actions of other local councils could affect the way in which the market responds to a levy that is imposed unilaterally by the City of Sydney.
- In this context the forecasts presented in this study should not be interpreted as precise indications of the likely outcome in particular years. Rather they should be seen as broadly indicative of the types of impact that might be expected and of the way in which they are likely to interact with other, often much more significant changes in the local and national economy and of the way in which they might be distributed between areas.

International Experience

- Although there is an extensive international literature that relates to affordable housing policy very little of it concentrates on the impact of policies on the housing sector or on other types of development that are affected.
- There are three main types of intervention found overseas which have been directed to providing a larger and more diverse supply of affordable housing:
  - Negotiated contributions;
  - Impact fees; and
  - Inclusionary zoning measures.
- Negotiated contributions are found most commonly in the United Kingdom. Although the system has some drawbacks and has required some modifications, it has succeeded in delivering an increase in the supply of affordable housing. It is not regarded as suitable for local application.
- Impact fees have been applied in the USA both to residential development and to non-residential development. The main concern is that by raising the cost of

development the authorities distort the development process leading to insufficient development to support the growth of the local economy and/or sub-optimal decisions about such things as the scale and location of development.

- Inclusionary zoning is said to be effective but comes at the cost of discouraging development generally. The current proposal for the City of Sydney combines elements of a system of inclusionary zoning with elements of an "impact fee" regime.
- Some significant recent critiques of these approaches in the UK and the USA have drawn attention to the lack of rigorous studies of the effects of the policies. They tend to agree that inclusionary zoning has little impact on the rate of production of housing destined for the private market, although one study noted differences between the impact in San Francisco and in Boston.
- Where there does seem to be agreement is that the impact of affordable housing measures is strongly influenced by the general market conditions within which they operate, having a much smaller deleterious impact (if any) when market conditions are buoyant and a more significant impact when the market is in recession.
- The few available studies that offer quantitative measures of the possible impact suggest that the impact of those factors which affect the effective "price" received by the suppliers of housing tends to be less than proportional to changes in its price or cost.

The Form of Levy

- The form which a levy or contribution system takes will have a significant impact on the response to it. Systems that are based on concrete and measurable quantities such as floor space are more robust and less open to evasion than those that are based on development costs or developers' profits. There is for example evidence of widespread dishonesty in the USA when the requirements have been based on "self-assessment" of costs by developers. On the other hand, systems that are based on converting floor space into a single monetary equivalent fail to capture variations in the cost and value of development and are therefore more onerous in the case of cheaper developments than in more expensive ones.
- There are also very real dangers in fixing the amount of any monetary contribution, whether or not *in lieu* of land or space, in such a way that it is unable to reflect changes in land prices, construction costs and household needs over time and between areas.

Impact on Commercial and Industrial Development

- Analysis of the structure of costs suggests that imposts equivalent to 5% or less of the cost of developed space are likely to have little impact at times when the market for commercial or industrial space is buoyant and a significant impact when it is in recession.
- In considering any forecasts of the impacts, however, it has to be born in mind that the response to changes in development conditions is bound to be "statistical" in nature. While it may be possible to make reasonable guesses about the possible impact across broad market areas, this response will not necessarily apply to all sites or all developers within the area.
- Commercial development activity is affected by a variety of factors including interest rates, economic prospects and existing vacancies. Together these have a much more significant impact on changes in the volume of development from year to year than a levy would. The extent of the impact of a levy must therefore be viewed in the context of these other influences as well as the wider swings in economic activity. The scale of the impact cannot be separated from the surrounding economic conditions since it varies with those conditions.
- The impact of an affordable housing levy at the 5% rate, paid in the form of a monetary contribution assessed at the full cost of the developed space, on commercial development in the Central area would initially be quite significant but it would decline over time. If the impact on the volume of development is interpreted as having an equivalent impact on employment, it could be expected to lead to a loss of about 70–250 *additional* jobs each year — about 1,500 in total over the period 2009 to 2020.
- In the Green Square area, by contrast, the proportionate impact on commercial development would be slightly larger; but because the overall volume of development is expected to be much smaller, the impact would be less significant. It would amount to the loss of about 3–15 *additional* jobs per year — about 75 in total over the period 2009 to 2020.
- If the rate at which the levy was set was reduced to 2%, it could be expected to lead to a loss of about 15–100 *additional* jobs each year in Central Area commercial activity — about 600 in total over the period 2009 to 2020. In the Green Square commercial area, however, the loss would be small, amounting to perhaps 30 jobs over the period 2009 to 2020.
- By contrast, assuming that the levy was paid in the form of a monetary contribution assessed as an appropriate share of the anticipated cost of providing 2,000 units of affordable housing (here assumed to be $140.00 per m^2, at 2008 prices), even if the levy was set at the 5% rate, there would be almost no detectable impact in either area.
- In the case of industrial development in the Southern Industrial area the analysis suggests that the impact would be somewhat greater, assuming that

the levy was paid in the form of a monetary contribution assessed at the full cost of the developed space. This is because in many cases the developers of industrial space would be able to find adequate space elsewhere in places that were not subject to the levy.

- Set at the 5% level, the levy might cause the loss of about 8% of the anticipated growth in developed area in each year, equivalent to the loss of about 10–75 *additional* jobs per annum or 425 jobs over the period 2009 to 2020 in the industrial zone in the southern part of the City of Sydney.
- However, this loss of industrial development and employment would fall proportionately if the levy were set at lower levels. And if the levy were paid as a monetary contribution assessed on a cost share basis (at $140.00 per m^2, at 2008 prices, for the 5% levy rate with appropriate adjustments for the lower rates) the impact would be negligible.

Impact on Housing Market

- The impact on the housing market will be influenced by many considerations including:
    - the amount and location of the land zoned for new housing development;
    - the location of the new affordable housing units; and
    - the origin of those who are allocated new affordable housing units — that is, where they would have been living if there were no new affordable housing units.
- The analysis has assumed that there will be no change in the amount or location of the land zoned for residential use *with* and *without* a levy and that the prospective tenants will all be drawn from areas within the City of Sydney. Three scenarios have been considered.
- Generally-speaking, the impact of imposing a levy would not be very large. This is mainly because the target number of dwellings is small relative to the size of the housing market and the projected increases in supply. Moreover, in the cases where there might be some "excess demand" for market housing as a result of the levy — that is, the initial demand would outstrip the available supply because space previously available for market housing was taken up by affordable dwellings — the consequential increase in the price of housing (required to establish an equilibrium between demand and supply) would itself stimulate some increase in the supply of *new* market dwellings to offset the negative impact of the levy.

Affordability

- If the *new* affordable housing is either provided *in situ* by developers in areas of new residential development (and full-value monetary contributions are paid by the developers of commercial and industrial development) or a decision is made by not-for-profit providers to distribute the *new* affordable housing in areas where other new housing developments are anticipated, there might be small increases in the price of housing in both the Central area and in Green Square.

- If the levy is paid in the form of a monetary contribution assessed at the true value of the space concerned and the affordable housing is assumed to be clustered into a limited number of areas, there would be very little impact on prices in the Central area but a small increase in the cost of housing for tenants and owners in Green Square. This is because, under this assumption, Green Square would be the site of the largest block of *new* affordable housing. Ultimo and Redfern would experience much smaller, scarcely detectable, increases. In other areas the price of housing would remain unchanged.
- If the monetary contribution is paid at the cost-share rate and the affordable housing is clustered — there would still be a detectable increase in the cost of housing in the Green Square area although not large.
- Changing the rate at which the levy was set would not lead to a very large improvement in affordability unless the rate was lowered to 2%, and then only in the Green Square area. The extent of the improvement would be similar whether the levy was paid as a monetary contribution and the affordable housing was clustered or was paid in kind and the housing was provided *in situ*. There would be no detectable impact on the price of housing from lowering rate of the levy below 5% in the case where the levy was paid as a monetary contribution, assessed on a cost-share basis. This is because the effects derive more from the consequential changes in the location of households and demand than from the direct impact of the development of *new* market housing.

Housing Availability

- If affordable housing is either provided *in situ* by developers in areas of new residential development (and full-value monetary contributions are paid by the developers of commercial and industrial development) or a decision is made by not-for-profit providers to distribute the *new* affordable housing in areas where other new housing developments are anticipated, there would be a small reduction in the supply of available market housing, relative to the level of demand, in the Central and Green Square areas.
- If the levy is paid in the form of a monetary contribution assessed at the true value of the space concerned and the affordable housing is assumed to be clustered into a limited number of areas, there would be negligible impact in the Central area, because the reduction in the supply of *new* market housing would be offset by the availability of dwellings (open to renovation and improvement) released by those who move out of the area into the new affordable dwellings. The impact would be slightly more significant in the Green Square, Ultimo and Redfern areas because these areas are assumed to house significant clusters of *new* affordable dwellings.

- If a monetary contribution is paid at the cost-share rate and the affordable housing is clustered, there would be a very small positive improvement in the Central area and the negative impacts would be less in Green Square, Ultimo and Redfern than under other scenarios because the lower rate of contribution would lead developers to cut back the supply of *new* affordable housing by a lesser amount.
- If a monetary contribution is paid at the cost-share rate and the affordable housing is clustered, the difference that a lowering of rate of levy below 5% would have would not be significant. Under the other scenarios the effect would lead either to a trivial change or to a very small improvement in the overall supply situation.

Demand and Supply Imbalance

- The effect of imposing an Affordable Housing Levy would be:
    - to encourage some redistribution of households between housing market areas in the City of Sydney; and
    - to result in a small decrease in the overall number of households housed in the area.

  The redistribution between areas would be induced by the relative price changes.
- The decrease in the number of households would take two forms:
    - a small increase in the number of people in some households; and
    - an inability to find housing in the City of Sydney area which would lead households to locate in other parts of the inner city (or elsewhere).
- Across the City of Sydney as a whole, over the period 2009 to 2020, the imposition of a levy at the 5% rate would lead to a reduction in the total available supply of market housing equivalent to perhaps two thirds to three quarters of the number of new dwellings that are anticipated annually in the absence of a levy. In the most affected areas, such as the Central area and the Green Square area, the loss might be equivalent to about one-and-a-half year's full annual production rate.
- In practice this means that additions to the supply of housing in the City of Sydney might be postponed by about one year compared with the situation without an affordable housing levy. This impact would be larger in recessionary years and less marked in buoyant years.
- However, if a monetary contribution is paid at the cost-share rate and the affordable housing is clustered, there would be negligible impact on the availability of housing (compared with the situation *without* an affordable housing levy). This is because it would be possible to house all the existing households at the going "price" of housing in all areas (taken together).

The Supply of New Market Housing

- The rate of residential development in the market sector would not be affected if a monetary contribution were to be paid at the cost-share rate and the affordable housing was clustered. In other circumstances, taking into account the fact that a part of the new housing supply would now take the form of *affordable* dwellings, the supply of *new* market housing would fall by about 6-7% across the period 2009 to 2020 as a whole. This would be slightly larger than the rate of levy over the period as a whole because the period incorporates three "recessionary" phases (when the declines would be larger) and only two "buoyant" periods (when the declines would be smaller).

Recommendations

- It is recommended that the City of Sydney should refine its estimates of the amount of development likely to occur in future so as to determine more clearly the scale of the levy that would be required to finance the construction of 2,000 new affordable dwellings. In this context it seems unwise to base the policy on estimates that relate to the period up to 2030, since there is far too much uncertainty about the more distant future. Instead the policy should be based on achieving a smaller number of dwellings over a considerably shorter period, with scope for the policy to be reviewed and extended thereafter.
- It is recommended that, to the extent that the law permits, the City of Sydney should establish a regime under which the contribution to affordable housing is paid in a monetary form rather than in the form of dedicated space.
- It is recommended that the monetary contribution payable by developers should be designed to reflect differences in the cost or value of developments and not be set at a fixed amount per unit area of development for all categories of development and in all locations.
- It is also recommended that the monetary amount be set in such a way as to accommodate possible changes over time in the real cost of providing and managing affordable dwellings, taking into account possible increases in the cost of land and construction costs as well as changes households needs and variations due to the selection of different locations within the City of Sydney for the new dwellings.
- It is further recommended that the City of Sydney should refine its policy to clarify whether the *new* affordable housing units will be allocated by preference to those already resident in the City of Sydney or might be allocated to those who otherwise would be living outside the area.

1 AIM OF STUDY

1.1 Background

The City of Sydney is concerned about the shortage of affordable housing in the local government area. In particular it is said to be concerned that there are insufficient housing opportunities for the many categories of low-to-middle income service workers who play a critical role in supporting local economic activity — so-called "key workers", such as cleaners, clerical workers, nurses, teachers, child-care staff etc.

The City (in association with the Central Sydney Planning Committee — CSPC) is in the process of establishing a new comprehensive Local Environmental Plan (LEP) and Development Control Plan (DCP) for the whole local government area to replace the patchwork of plans inherited from the various councils whose land was incorporated into the City of Sydney in 2003. The City is investigating measures to stimulate the supply of affordable housing in order to increase the number of affordable housing units through the LEP and DCP.

The recently promulgated (draft) Strategic Plan for the City — *Sustainable Sydney 2030* — has established a target of 7.5% of the total housing stock for affordable housing. (A further 7.5% is to take the form of social housing.) This target would require slightly more than 10,000 affordable dwellings by 2030. It is estimated that currently there are slightly over 2,000 affordable dwellings in the area. The deficiency of approximately 8,000 dwellings is to be met through a variety of means. These include community housing, crisis accommodation, student housing, aboriginal housing and housing supported by other State and Federal Government initiatives.

After allowance for these programs, there remains a deficiency of about 2,000 affordable dwellings which would need to be supported directly by an additional source of finance.

1.2 Outline

In this context the City of Sydney has proposed an Affordable Housing Levy. This would be used to provide a mix of dwellings for very low, low and moderate income households.

The aim of the current study is:

- ✓ to undertake a literature review with a view to identifying the various forms of affordable housing levy in general and their possible impacts; and

- ✓ to model the impact of an affordable housing levy, set at a variety of different rates, on housing affordability and housing supply in the area and on the other categories of development that may be affected.

The review of relevant literature is itself split between the following three sections which address issues relating to the form of affordable housing contributions.

1.3 Forecasts and Uncertainty

There is at the present time great uncertainty surrounding the economic and financial prospects for Sydney, NSW and Australia.

In this context the forecasts presented below should not be interpreted as precise indications of the likely outcome in particular years. Rather they should be seen as broadly indicative of the types of impact that might be expected and of the way in which they are likely to interact with other, often much more significant changes in the local and national economy and of the way in which they might be distributed between areas.

1.4 Other Limitations

The results of the present study may be affected by changes in circumstances which fall outside the scope of the study. These include such things as:

- ✓ changes in Commonwealth and State government policies towards affordable housing and housing more generally;
- ✓ actions taken by neighbouring local councils which might affect development, both residential and non-residential, in the City of Sydney;
- ✓ other policies, such as transport or climate change policies, which may affect the propensity of people or businesses to locate in particular areas within the Sydney metropolitan region.

The findings and forecasts outlined below need to be seen in this wider context.

2 AFFORDABLE HOUSING — FORMS OF CONTRIBUTION

2.1 Introduction

There is a very large body of published articles and papers that relate to the problems of housing affordability. The majority of them describe and analyse the extent of the problem. A few suggest causes. Others propose a variety of solutions, mostly without any very detailed or sophisticated analysis.

Similarly, there is an extensive literature on the mechanisms employed around the world to try to promote housing affordability. Much of this rightly focuses on macro-economic issues, specifically the taxation system, with the planning system (or, more correctly, the 'development control' system) being seen as a field for secondary, but nonetheless important action. As a recent AHURI report points out:

> Within a local jurisdiction, planning mechanisms or levers can be used to achieve particular affordable housing outcomes. Examples include controls to protect low cost stock, regulation based incentives to promote low cost housing in the private market, or requirements to dedicate a proportion of development value for affordable housing programs.[1]

In addition, there is the approach, used mainly in the USA but also in Australia, of "linkage" contributions to affordable housing to mitigate the impact that development has on the availability of affordable housing, or on the need to house workers to service the development or to operate services required by development in the area generally.

A City of Sydney levy would be "a legal obligation for developers to contribute to affordable housing as a condition of development approval".[2] Further, as with comparable systems:

> The requirement may apply to a specific site, area, or across a zone or entire local authority. They might also be limited to a specific type of development (residential, or commercial, or both); category of site (a redevelopment site or a site that is being rezoned); or development scenario (when a developer seeks a variation in planning controls to permit their development).

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[1] Gurran, N, Milligan, V, Baker, D, Bugg, L and Christensen, S, (June 2008) *New directions in planning for affordable housing: Australian and international evidence and implications*, Australian Housing and Urban Research Institute, Sydney Research Centre (AHURI), Final Report No. 120, p. 13.

[2] Gurran *et al* (June 2008), p. 41.

> Thresholds often apply to the scale of development that is required to make the affordable housing contribution.[3]

The impact on housing production and costs under this approach is the focus of this literature review; however, other ways of eliciting contributions for affordable housing and their implications are also examined as a means of informing, and as a basis for comparison with, the likely preferred option.

Within the range of options available, a primary distinction may be made between "voluntary negotiated contributions"[4] to affordable housing and "compulsory" or "mandated" contributions. Although there are some examples in Australia of a system of voluntary contributions to affordable housing[5], developer contributions to affordable housing, here and overseas, are overwhelmingly mandated. Internationally and in Australia, compulsory contributions generally take one of three forms:[6]

a. <u>Negotiated contributions</u>: This is the system that applies primarily in the UK, where the nature and the extent of the contribution for affordable housing (and other 'obligations'[7]) are negotiated between the applicant and the consent authority. This approach derives from the fundamentally different nature of the planning system in the UK, compared with Australia, whereby the development approval is based much more on a negotiated outcome, rather than on development controls that have been prescribed for the site.

   There are a few examples of negotiated contributions to affordable housing being obtained through developer agreements for specific sites in Australia (e.g. for the Carlton United Breweries site under the Redfern Waterloo Authority Act 2004, for Ropes Crossing - the ADI site (Blacktown LGA), in the Randwick LGA and for one-off projects in Port

[3] Gurran *et al* (June 2008) pp. 31-32.

[4] Between an applicant and an approval authority, generally in return for a variation of the development controls.

[5] Canada Bay and Byron have voluntary provisions, but as yet, these have not produced significant affordable housing outcomes. Waverley Council has a density bonus for the provision of affordable housing, which is a voluntary provision. See Gurran *et al* (June 2008), p. 46 and pp. 50-51.

[6] Gurran *et al* (June 2008), p. 42.

[7] In the UK, "a planning obligation is a private agreement, usually negotiated in the context of a planning application, between a local authority and persons with an interest in the land." Communities and Local Government (November 2006) *Delivering Affordable Housing*. Communities and Local Government, London, p. 20.

Phillip, Victoria[8]). However, this is not an approach that has been (or could easily be) applied to whole areas.

b. Impact fees: The idea of impact fees is that a contribution is required to mitigate likely impacts arising from the approval of the development concerned. Thus an affordable housing contribution may be required as a result of a commercial development giving rise to the need to accommodate (key) workers to service this development (a mechanism used mainly in the USA and usually termed (commercial) 'linkage fees'), as a means of mitigating a loss in affordable housing brought about by the development ('mitigation' fees), or as a means of providing housing for workers in the service sector generally within the area experiencing development. Under this approach, there needs to be a direct link (a 'nexus') between the contribution required and the impact anticipated.

   Under the NSW *Environmental Planning and Assessment Act 1979*, the nexus principle applies generally to Section 94. As noted below, it also applies specifically to part of the sub-section of S.94 that allows developer contributions for affordable housing to be levied (S.94 F(1) (a) and (b)).

c. Inclusionary zoning: Inclusionary zoning refers to development controls, usually for residential development, that require developers to dedicate a proportion of the development for affordable housing:

   > …the defining feature of IZ [inclusionary zoning] is a citywide or countywide mandatory requirement or voluntary objective that assigns a percentage of housing units in all new residential developments with more than a specified minimum of units, to be sold or rented to lower- or moderate-income households at affordable rates.[9]

   The term "inclusionary zoning" is often used more broadly (some think incorrectly[10]) to describe a situation where a certain amount of affordable housing (or an equivalent amount of money, in lieu) might be required to be contributed as a condition of development approval in a particular zone or area, related to the quantum of development to be approved. This latter approach, while not exactly "inclusionary

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[8] Gurran *et al* (June 2008), pp. 49, 59, 60. The statutory covenants used to obtain affordable housing for the Ferry Apartments development in Brisbane is a similar mechanism. See also Gurran *et al* (June 2008), p. 46-47, 55.

[9] Calavita, N and Grimes, K (1998) Inclusionary Housing in California: The experience of Two Decades. *Journal of the American Planning Association*, Vol. 64 No. 2: 150-169.

[10] Calavita and Grimes (1998), p. 151.

zoning"[11], describes what is permissible under S.94F and what has been effected under State Environmental Planning Policy (SEPP) No. 70 in Sydney in the Ultimo-Pyrmont Precinct of City West, in Willoughby and in Green Square.

2.2 Nexus

As noted above, in the USA the requirement for an affordable housing contribution is often limited by the need to establish a nexus between the need for affordable housing and the expected impact of the development. This reflects the very strong constitutional and legislative conditions in the USA which limit the imposition of additional taxes — i.e. charges which are not intrinsically directed to the provision of a service or the mitigation of an adverse impact.

Section 94 of the *Environmental Planning and Assessment Act 1979* (as amended) does establish a general requirement for nexus. But this requirement has been interpreted much more loosely in New South Wales in the field of developer contributions than in the USA.

Section 94F states explicitly that contributions (in cash or kind) for affordable housing can only be required where (among other considerations) at least *one* of four conditions is satisfied, as follows:

> (1) This section applies with respect to a development application for consent to carry out development within an area if a State environmental planning policy identifies that there is a need for affordable housing within the area and:
>
> a. the consent authority is satisfied that the proposed development will or is likely to reduce the availability of affordable housing within the area, or
>
> b. the consent authority is satisfied that the proposed development will create a need for affordable housing within the area.

The conditions in both cases do not relate to development in general but to the proposed development. This suggests that they would in practice be very hard to apply.

Although there is no explicit statement to the effect, it might be argued that these conditions establish an *implied* requirement that the burden imposed should be proportional (at least approximately) to the extent of the "problem"

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[11] "*The terms 'inclusionary housing' and its correlative, 'inclusionary housing' have been used imprecisely in the literature and by practitioners for many years to describe all manner of mandatory fees and voluntary incentives facilitating the development of affordable housing in suburban and downtown areas*". Calavita and Grimes (1998), p.151.

— that is, *either* the consequential reduction in the availability of affordable housing *or* the created need for it.

However, the "nexus" principle does not appear to apply to the other subsections of S.94F (1), which are set down as equally valid alternatives, viz.:

> c. the proposed development is allowed only because of the initial zoning of a site, or the rezoning of a site, or
>
> d. the regulations provide for this section to apply to the application.

Levies imposed under S.94F therefore cannot always be considered impact fees, in the sense indicated above. Moreover, consistent with this, it appears that the rates at which levies have been imposed under S.94F to date have not been related to an assessment of the likely impact on the loss of affordable housing or on the likely requirement arising from development, which would be the case if the nexus principle were being applied. However, where contributions for affordable housing are levied specifically to replace affordable housing lost as a result of the development (e.g. in North Sydney[12]), the nexus principle has been applied.

2.3 Relevance to Sydney City

The current proposals for an affordable housing levy in the City of Sydney are not based on the establishment of nexus. Indeed it seems likely that it would be very difficult to establish such a *direct* nexus, certainly at the level of individual developments or sub-areas.

Transport data, for example, suggest that, in *relative* terms — that is, as a percentage of total employment in the area — there are only a few areas within the City of Sydney where there exist *above average* concentrations of work trip *destinations* for those in the middle to lower-income occupational groups. Similarly, in *absolute* terms, only some areas within the City of Sydney reveal *above average* concentrations of work trip *destinations* for those in the middle to lower-income occupational groups. It would be hard to establish that one development or one category of development or one small area generated a larger need for affordable housing than any other.

Whether or not the base for an affordable housing levy could be confined to these more limited categories of land use or more confined areas is beyond the scope of the present exercise.

In its calculations to date the City of Sydney has assumed that any proposed levy would be applied to development throughout the local government area. Whether or not there exists a legal basis for this, or what amendments to

[12] See, for example, http://www.northsydney.nsw.gov.au/www/html/1971-housing-sepp-10-section-94.asp (*as at November 2008)*.

current laws or regulations would be required, are matters for legal determination which P/P/M Consultants Pty Ltd is not qualified to undertake.

For the purposes of the present study therefore it has been assumed that any affordable housing levy adopted by the City would be applied across all types of commercial and residential development throughout the local government area, subject to a lower threshold of 200 m^2 of development.

Moreover, following current practice in NSW, the proposal assumes apparently that any levy on development in the City of Sydney would be based on a proportion of the size of the development. A system of this type, while resembling inclusionary zoning, would not be directly comparable with the approach used internationally outlined above. The review of literature below relating to inclusionary zoning and other methods of obtaining contributions for affordable housing may however have some policy implications for the form and administration of a City of Sydney levy.

3 REVIEW OF RELEVANT LITERATURE

3.1 Negotiated Contributions

As noted above, negotiated contributions are the key mechanism used in the UK to gather contributions towards affordable housing.

In the UK negotiated contributions for affordable housing and other benefits revolve around the concept of "planning obligations" that are set down in agreements under S.106 of the Town & Country Planning Act 1990.

The London Borough of Islington's website[13] provides a clear explanation:

> Planning obligations are used as part of the planning application process to address specific planning issues arising from a development proposal. They are normally agreed between the Council, land owners and developers within legal agreements (Section 106 agreements) and are intended to make a development acceptable which would otherwise be unacceptable in planning terms.
>
> Planning obligations can be used to specify the nature [of the] development, address the impacts of development and to contribute to infrastructure needs associated with the proposal.

In Islington for example, the following types of proposals require a S.106 agreement:

- ✓ Proposals for ten or more residential units
- ✓ Student housing / hotels / hostels with ten or more rooms
- ✓ Commercial and employment developments with an of 500 m^2 gross external floor space or more
- ✓ Other proposals where necessary.

In Islington, there is also a dedicated "Affordable Housing Officer" in the Housing and Planning department who "takes the lead on negotiating affordable housing and advising Development Management Case Officers and potential applicants on all matters relating to affordable housing".

A recent study[14] of the current state of local planning authority (LPA) practice in the UK regarding the provision of affordable housing through S.106 agreements found that:

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[13] http://www.islington.gov.uk/Environment/Planning/PlanningPolicy/Planning_Obligations/

[14] RICS Research, University of Cambridge (October 2007), *The provision of affordable housing through Section 106: the situation in 2007*, RICS Research paper series, Volume 7, Number 14.

> in many LPAs, policy on affordable housing is in a state of flux, with changes either recent or underway. Policy is by no means consistent across the country. Whilst the data show that more affordable housing is being delivered through S106, few LPAs meet their affordable housing targets. [15]

Problems with the operation of S.106 agreements are said to include the following:

- ✓ its application has been highly variable[16];
- ✓ there is concern about the lack of transparency in the system and the lack of certainty for applicants about the contributions that will be required[17];
- ✓ there are big differences amongst local authorities as to the size and type of contributions sought (S.106 contributions were found to be five times higher in the south than in the north of England and higher for greenfield than for brownfield sites[18]);
- ✓ concerns have been raised about whether planners have the necessary skills to negotiate the complexities of S.106 agreements[19];
- ✓ negotiating S.106 agreements lead to delays in the approval process[20];
- ✓ because they are based on negotiations, S.106 agreements lead to delays and frustration[21].

Despite these problems, the literature on S.106 suggests that once development gets underway, the system works reasonably well and affordable housing is effectively delivered.[22] However, there have recently been a number of changes in the housing and planning policy contexts in the UK, which have resulted in changes to the use of S.106. In response to the Barker reports reviewing the land use planning system in England[23] and reviewing housing supply[24], the

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[15] RICS Research (2007), p.7.

[16] Communities and Local Government (CLG): London (2005) *Consultation Paper on Planning Policy Statement 3 (PPS3) – Housing: A Summary of Responses and Key issues.* Communities and Local Government, London.

[17] CLG, (2005).

[18] Barker, K. (2006) *Barker Review of Land Use Planning: Final Report – Recommendations.* HM Treasury, London.

[19] Barker, K. (2006).

[20] RICS Research (2007).

[21] RICS Research (2007).

[22] Monk, S., Crook, T., Lister, D., Lovatt, R., Aoife, N. L., Rowley, S and Whitehead, C. (2006) *Delivering affordable housing through Section 106: Outputs and outcomes.* Joseph Rowntree Foundation, York.

[23] Barker, K. (2006), pp. 32-39.

UK government has introduced other measures to speed up the delivery of housing generally and also affordable housing. Planning Policy Statement 3: Housing (PPS3) is primarily intended to ensure that more land is released for housing, but it also outlines the role of the planning system in the delivery of affordable housing. *Inter alia*, it stipulates that local authorities should:

- ✓ set targets for affordable housing;
- ✓ ensure that affordable housing meets the needs of current and future occupants;
- ✓ specify the type and size of affordable housing;
- ✓ set out the circumstances in which affordable housing will be required;
- ✓ set out the approach to seeking developer contributions to affordable housing. [25]

A further proposed response on the part of the UK government has been to scale back the use of S.106 and to introduce a Planning Gain Supplement[26] to capture some of the increase in value resulting from development consents. This is also a result of the Barker report's recommendation to limit the use of S.106b to the mitigation of direct impacts in order to increase certainty for developers and reduce negotiation costs.

The literature on S.106 negotiated contributions, while alluding to a range of problems (noted above), does not appear to focus on the issue of whether costs are passed on automatically to purchasers and/or whether the system is a disincentive for development. This is not surprising as the UK system is based much more on the idea that development rights will be negotiated between the applicant and the approval authority and contributions are part of that negotiation. The S.106 process has also been part of the UK planning system for some time (in its current form since 1991). Thus while there is evidently concern about the cost of delays and a lack of transparency and certainty in the process, the system of negotiated contributions is generally accepted. [27]

Some of the problems associated with S.106 highlight the relative benefits of the NSW approach and the system that the City of Sydney may use to introduce a levy on development for affordable housing. If based on a proportion of floor space (or another measure):

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[24] Barker, K. (2004) *Review of Housing Supply Final Report – Recommendations Delivering Stability: Securing our Future Housing Needs.* HM Treasury, London.

[25] Communities and Local Government: London (2006) *Planning and Policy Statement 3: Housing.* Communities and Local Government, London.

[26] Communities and Local Government: London (2006) *Changes to Planning Obligations; a Planning-gain Supplement Consultation.* Communities and Local Government, London.

[27] Monk et al (2006), p. 38.

- ✓ there would be a degree of certainty not (yet) available under the UK system;
- ✓ there would be consistency in the application of the levy;
- ✓ no complex negotiations would be required.

Local government in NSW might consider aspects of the UK system regarding

- ✓ the setting of targets for affordable housing;
- ✓ ensuring that affordable housing meets the needs of current and future occupants;
- ✓ specifying the type and size of affordable housing.

3.2 Impact Fees

In the USA, impact fees (also known as exactions) are a principal means whereby contributions are made to local government by developers to provide some or all of the improvements to infrastructure, the need for which has been brought about by the development and its impacts. They owe their origin to the "in-lieu" fees which could be paid by developers *in lieu* of the dedication of land or space, because it was found that the dedication of land often resulted in the provision of space that was not best suited to the public purpose for which it was intended (e.g. schools). In general terms therefore the rationale for Section 94 of *Environmental Planning and Assessment Act 1979* is similar to the US system.

However, unlike NSW, in the USA, impact fees are also a principal means whereby contributions are levied for affordable housing. They usually take the form of ('commercial' or 'housing') "linkage fees", which are impact fees charged to new commercial, office and other non-residential developments (and sometimes to 'high-end' residential development[28]) either to mitigate the impact of commercial growth on the supply of affordable housing or to provide housing for those (key) workers, the need for which is created by the development concerned.[29] The idea of "linkage" emphasises the fact that there needs to be a nexus between the contribution sought and the impact anticipated. Local governments in the USA have also been able to impose "mitigation fees" on commercial developments that directly cause a loss of

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[28] The rationale being that "high-end" residential developments will generate the need for workers to service them, as do commercial developments.

[29] For typical examples of linkage fees for affordable housing see Walnut Creek, CA: http://www.ci.walnut-creek.ca.us/header.asp?genericId=3&catId=20&subCatId=1128 or San Diego, CA: http://www.sdhc.net/dbwantdev8.shtml; or Destin, Florida: http://www.cityofdestin.com/index.php?src=gendocs&ref=Impact_Fees&category=AbouttheCity

affordable housing, once again relying on there being a nexus between contributions and impacts.

Housing linkage fee schemes first emerged in the USA in the 1980s in the largest cities, including Boston, Seattle, San Francisco and Miami, that were experiencing significant increases in commercial development. [30]

Linkage fees are usually calculated as a proportion of the floor area of new construction.[31] Applicants may be given the option of providing actual housing instead of a monetary contribution. Impact fees are generally levied through written provisions in ordinances, but also sometimes through negotiation. (With negotiated contributions the concept of nexus is still central and therefore the negotiation process is unlike the UK process described above.)

The problems said to be associated with impact/linkage fees[32] are that they increase the cost of housing[33], that they have an adverse effect on profit margins, resulting in increased rents to increase rates of return[34] and that generally they discourage investment and job growth.

However, as pointed out in a recent book on impact fees and housing affordability:

> The effect of impact fees on housing affordability and availability is contested. Some recent studies show that carefully tailored impact fees may not necessarily reduce the supply of housing that is affordable and in fact may increase it. However, impact fees are often criticised for adversely

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[30] National Association of Realtors (2008) *Growth Management Handbook*.

[31] For a text on the practicalities of calculating impact fees, see Newport Partners and Virginia Polytechnic Institute and State University (June 2008), *Impact Fees & Housing Affordability: A Guidebook for Practitioners*. U.S. Department of Housing and Urban Development, Washington DC.

[32] Kolo, J. and Dicker, T. J. (Fall 1993) Practical Issues in Adopting Local Impact Fees. *State and Local Government Review*, Vol. 25, No. 3: 197-206.

[33] Landis, J. D. (1986) Land regulation and the price of new housing. *Journal of the American Planning Association*, Vol. 52, No.2: 9-21; Connerly, C. E. (1988) Social implications of impact fees. *Journal of the American Planning Association*, Vol. 54, No. 1: 75-78; Colorado Department of Local Affairs (1998) *Reducing Housing Costs Through Regulatory Reform: A Handbook for Colorado Communities:* http://www.dola.state.co.us/Doh/Documents/ReducingCosts.htm

[34] Huffman, F. E. Jr. and Smith, T. R. (1988). Market Effects of Office Development Linkage Fees, *Journal of the American Planning Association*, Volume 54, Issue 2: 217 – 224.

> affecting housing affordability, by either raising prices or reducing supply, or both. [35]
>
> The potential effect of impact fees on housing affordability is hotly debated, with evidence seemingly supporting all views. [36]

A recent study of the economic impact of impact fees prepared for the City of Destin, Florida, concluded that:

> Impact fees will result in price increases when buyers are willing to accept price increases. Otherwise an impact fee will be absorbed by the seller as either lower profits or slower sales. Buyers would be willing to accept higher prices if the product being offered, a location within Destin, has higher value to them than the value of available alternatives…. The division between buyers and sellers will depend on the nature of demand for Destin locations as contrasted with alternatives to Destin. [37]

The National Association of Realtors in the USA summarises the pros and cons of housing linkage fees as follows:

> PROS:
>
> - ✓ Assuming that the local government can show the required nexus between the commercial or other non-residential development and its impact in terms of housing, a linkage program could lessen the negative effects associated with downtown gentrification and help create affordable housing.
>
> CONS:
>
> - ✓ Housing linkage will not succeed if the local market does not support increased commercial development.
> - ✓ It is unfair to single out new commercial development as the cause of general and complex transit and employment issues in the inner city.
> - ✓ If the housing exaction fees are set too low, then revenue generated will be insufficient to provide enough of the facilities or services to solve the problems ostensibly caused by the development.
> - ✓ If the housing linkage exaction fees are set too high, the resulting increase in development costs and commercial rents may deflect commercial development from the central city to the suburbs.

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[35] Nelson, A. C., Bowles, L. K., Juergensmeyer, J. C., Nicholas, J. C. (2008) *A Guide to Impact Fees and Housing Affordability*. Island Press, Washington, p. 3.

[36] Nelson et al (2008), p 260.

[37] Nicholas, J. P. (July 2007) *The Economic Impact of Impact Fees.* Prepared for the City of Destin.

- ✓ The argument has been made that housing linkage is no more than a cynically veiled effort to tax one segment of society for redistribution to another while the 'getting is good'. [38]

The above summary may have some useful pointers for the City of Sydney in its design of a levy for affordable housing:

- ✓ a levy could make a meaningful difference in the provision of affordable housing;
- ✓ a levy for affordable housing will be more effective when conditions for commercial (and other) development in the City of Sydney are more attractive;
- ✓ the fact that the City of Sydney may impose a levy on all development (not just commercial development) would be seen as a plus, compared with the situation in the USA;
- ✓ setting the "right" level for the levy will be important in striking a balance between being able to generate sufficient funds for affordable housing and not "deflecting" development to other locations (although, as noted above, this will depend on economic circumstances generally). [39]

3.3 Inclusionary Zoning

Inclusionary zoning is a technique used widely in the USA to require that a proportion of dwellings in a development be set aside for affordable housing. Inclusionary zoning concurrently increases the supply of affordable housing and improves social mix.

Most provisions for inclusionary zoning require the affordable units to be built on site; some allow the units to be built nearby or an equivalent monetary payment to be contributed in lieu.

Inclusionary zoning provisions often go hand in hand with incentives to developers, specifically density bonuses. [40]

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[38] National Association of Realtors (2008), p. 149.

[39] A 1989 study of office-housing linkage in San Francisco, for example, showed that the scheme "generated a significant source of housing funds for San Francisco (but) the program nonetheless was biased against providing full mitigation of office development impact on the housing market. The evidence also shows that (the scheme) had no negative impact on the rate of office space growth". Goetz, E. (1989) Office-Housing Linkage in San Francisco, *Journal of the American Planning Association*, Vol. 55, Issue 1: 66 – 77.

[40] See Rubin, J. I. and Seneca, J. J. (1991), Density Bonuses, Exactions, and the Supply of Affordable Housing. *Journal of Urban Economics*, 30, 208-223.

There are hundreds of places in the USA that use some form of inclusionary zoning provisions for affordable housing:

> According to a recently completed survey and study, at least 107 inclusionary zoning programs exist in California as of March 2003. In Massachusetts, there are 118 programs in which the local jurisdiction uses traditional inclusionary zoning or some other incentive zoning to create affordable housing. 266 de facto inclusionary housing programs exist in New Jersey…. Two or three dozen more programs exist in cities and counties scattered around the country (with four alone in the Washington D.C metro area and programs in local jurisdiction is a diverse mix of states such as North Carolina, New Mexico, Florida, Illinois, Vermont and Colorado. [41]

The best known of all of these schemes, partly because it has been in place longest, is in Montgomery County, Maryland.[42] Since 1974 this scheme has produced nearly 10,000 "moderately priced dwelling units". The relevant ordinance requires developments of more than 35 units to include 15 percent moderately priced dwelling units. Montgomery County provides a density bonus to developers, allowing 22 percent more development than would otherwise be allowed.

The pros and cons of inclusionary zoning are said to include the following: [43]

PROS:

- ✓ The provision of affordable housing at little or no financial cost to government.
- ✓ The creation of economically diverse and heterogeneous communities; avoidance of over-concentration and stigmatization of affordable housing units.
- ✓ Employers benefit from workers being able to live in locations close to employment and transport opportunities

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[41] Brunick,N. (n.d.) *The Impact of Inclusionary Zoning on Development.* Business and Professional People for the Public Interest, p. 2.

[42] www.growingsensibly.org/cmapdfs/ideasv3.pdf; http://www.policylink.org/EDTK/IZ/Success.html; http://www.huduser.org/rbc/search/rbcdetails.asp?DocId=756;

[43] Burchell, R. W. and Galley, C.C. *Inclusionary Zoning: A Viable Solution to the Affordable Housing Crisis? Inclusionary Zoning: Pros and Cons* (n.d.): http://www.ginsler.com/documents/NHC-2.html; Schofield, J. H. and Brown-Graham, A. R. (n.d.): *Overview of Inclusionary Zoning*: www.openplans.org/projects/paiec-2007/logement-social-et-secteur-prive/inczonch1.pdf; Municipal Research and Services Center of Washington (n.d.): http://www.mrsc.org/index.aspx; Brunick, N. (n.d.).

- ✓ Communities benefit from key workers having access to housing in otherwise unaffordable locations
- ✓ When linked to density bonuses, inclusionary zoning contributes to containing sprawl
- ✓ Provisions such as density bonuses offer an incentive for development
- ✓ Inclusionary zoning that does not provide for density bonuses can preserve restrictions on higher densities

CONS:

- ✓ Inclusionary zoning levies may discourage development in areas with supply shortages
- ✓ Inclusionary zoning shifts of the cost of providing affordable housing onto developers
- ✓ Inclusionary zoning may reduce the value of the development where affordable housing units are incorporated
- ✓ The cost of inclusionary zoning may be passed on to consumers
- ✓ When linked to density bonuses, inclusionary zoning may lead to overdevelopment.

It was pointed out in an article in 2000[44] that:

> there have been two attempts of note to use inclusionary zoning for the provision of affordable housing in Sydney. These have involved the large inner city revitalization projects of City West and Green Square.

This same article provides a detailed account of the history of the initial provisions for City West and Green Square, the successful court challenge to the City West provisions and subsequent changes to the EP&A Act to make it legally possible, potentially, for Councils to impose a levy for affordable housing. The article was however published before the introduction of SEPP 70 – Affordable Housing, the regulatory provision that established precisely how levies for affordable housing were able to be imposed under the Act.

SEPP 70 makes provision for levies to be imposed for affordable housing in the Ultimo-Pyrmont precinct of City West, in Willoughby and in the Green Square area. These provisions are a variant of inclusionary zoning, as it is generally used in the USA, giving the consent authority the option of exacting a financial contribution or a contribution of dwellings. Dwellings may not be required to be provided on the development site and the primary calculation of the contribution is based on a proportion of the value of the floor space of the development (rather than on a number of units), but in other respects the

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[44] Williams, P. (2000) Inclusionary Zoning and Affordable Housing in Sydney. *Urban Policy and Research*, vol 18 no. 3 pp.291-310.

provisions of SEPP 70 resemble inclusionary zoning provisions that are prevalent in the USA.[45]

A key concern on the part of developers is the housing cost and production implications of inclusionary zoning:

> Most developers resolutely oppose… (inclusionary zoning) programs and remain firmly convinced that they are detrimental to their financial interests.[46]

The Property Council of Australia, while not referring specifically to levies for affordable housing, has the clear view that "government related taxes, fees, levies, charges and compliance costs are … adding enormously to the cost of new housing".[47]

It will therefore be useful to consider the literature on the perceived and actual effects of inclusionary zoning on the propensity to develop and costs.

At least three recent articles have made the point that given the widespread use of inclusionary zoning [IZ], the extent of research on the effects of the provisions is limited.

The first states:

> In spite of its popularity among housing advocates and policymakers and steady opposition from critics, we know relatively little about the effects of inclusionary zoning policies. At the centre of the debate over IZ are two empirical questions. First, have IZ programs had the effect of restricting the supply or market-rate housing and increasing its costs in the jurisdictions adopting IZ? Second, have IZ programs been successful at producing affordable units? Unfortunately, few researchers have tried to answer these questions, and many of the studies that have been completed suffer from significant data and methodological limitations. It is difficult to obtain accurate data on the adoption and characteristics of inclusionary zoning

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[45] Mechanisms requiring contributions of affordable housing for the redevelopment of specific sites in South Australia (the Glenside Hospital, City of Burnside and the Cheltenham Racecoure, City of Charles Sturt). have been described as "inclusionary zoning" (Gurran *et al* (2008) p. 62), but this would be a very limited (site-specific) use of an inclusionary zoning provision.

[46] Calavita, N. and Grimes, K. (1998) Inclusionary Housing in California: The Experience of Two Decades. *Journal of the American Planning Association*, Vol. 64, No. 2: 165.

[47] Property Council of Australia (January 2006) *Boulevard of Broken Dreams: The future of housing affordability in Australia*.

> programs across jurisdictions and over time, and to track the number of units produced under these programs.[48]

The second notes:

> Although debate over the merits of inclusionary zoning has continued for nearly three decades, there have been no rigorous studies on their effects on housing prices and starts.[49]

The third observes:

> …it should be acknowledged that to date, not a great deal of empirical research exists on the subject (whether inclusionary development slows development).[50]

These three articles set out to fill the gap, addressing, inter alia, what effects inclusionary zoning has had on the production of housing and housing prices.

In summary, the research conclusions of the three studies are as follows:

Brunick, N. (n.d.), The Impact of Inclusionary Zoning on Development. Business and Professional People for the Public Interest.

> …one can conclude that inclusionary zoning is unlikely to slow private, residential development, and in some cases, it may actually help to accelerate development. Of course, whether or not development will slow or rapidly increase in a specific community depends to a much larger degree on the strength of the local housing market, broader economic trends, and the specific provisions of the inclusionary program itself. As a general rule, larger market forces (interest rates, the unemployment rate, levels of aggregate demand, consumer confidence, overall economic growth rates, etc.) will determine whether development in any particular community will rise or fall; the presence or absence of inclusionary zoning is not the primary determinant.[51]

Knaap, G. J, Bento, A. and Lowe, S. (February 2008), Housing Market Impacts of Inclusionary Zoning. National Center for Smart Growth Research and Education.

> We find that inclusionary zoning programs had measurable effects on housing markets in jurisdictions that adopt them: the share of multifamily housing increases; the price of single family houses increases; and the size of single family houses decreases. These results are fully consistent with

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[48] Center for Housing Policy (March 2008), *The Effects of Inclusionary Zoning on Local Housing Markets: Lessons from the San Francisco, Washington DC and Suburban Boston Areas.* Furman Center for Real Estate and Urban Policy, New York University.

[49] Knaap, G. J, Bento, A. and Lowe, S. (February 2008), *Housing Market Impacts of Inclusionary Zoning*. National Center for Smart Growth Research and Education.

[50] Brunick (n.d.), p. 4.

[51] Brunick (n.d), p. 4.

economic theory and demonstrate that inclusionary zoning policies do not come without cost.

… The imposition of inclusionary zoning requirements was not strong enough to slow the overall rate of housing production but did cause a measurable shift from single family to multifamily housing production….

We also found that housing prices that adopted inclusionary zoning increased about 2–3 percent faster than cities that did not adopt such policies. In addition, we found that housing price effects were greater in higher priced housing markets than in lower priced markets…. These findings suggest that housing producers did not in general respond to inclusionary requirements by slowing the rate of single family housing construction but did pass the increase in production costs on to housing consumers. Further, housing producers were better able to pass on the increase in costs in higher priced housing markets than in lower priced housing markets.

Finally, we found that the size of market rate housing in cities that adopted inclusionary zoning increased more slowly than in cities without such programs…. These findings suggest that inclusionary zoning programs caused housing producers to increase the price of more expensive homes in markets where residents were less sensitive to price, and to decrease the size of less expensive homes in markets where residents were more sensitive to price.[52]

Center for Housing Policy (March 2008), The Effects of Inclusionary Zoning on Local Housing Markets: Lessons from the San Francisco, Washington DC and Suburban Boston Areas. Furman Center for Real Estate and Urban Policy, New York University.

Our analysis finds no evidence that IZ programs have had an impact on either the prices or production rates of market-rate single-family houses in the San Francisco area. In suburban Boston, however, we see some evidence that IZ has constrained production and increased prices of single-family houses. The number of affordable housing units produced under the suburban Boston IZ programs, and the estimated size of the programs' impact on the supply and price of housing are both relatively modest. These results reflect the most appropriate analysis of the best available data. Because of the limitations in the scope and quality of the available data, however, both the San Francisco and the suburban Boston results should be treated with caution... The different results from the San Francisco and suburban Boston analyses are an important reminder than IZ policies come in many shapes and sizes and need to be thought of as a piece of the larger regulatory framework, not a stand-alone solution.[53]

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[52] Knaap et al (February 2008), pp. 2-3.

[53] Center for Housing Policy (March 2008), pp. 8-9.

There is clearly no absolute or unanimous view about the effect of inclusionary zoning on housing production and prices. There does seem to be some consensus though that (the effects of) inclusionary zoning should be seen within a context – regulatory, social and economic. Inclusionary zoning may have an effect on the production and price of housing, but the nature and extent of any effects would appear to depend on the prevailing economic circumstances, the sector of the housing market and the regulatory environment generally.

3.4 Quantitative Measures

As noted above, there is a notable lack of detailed empirical studies which would facilitate *quantitative* estimates of the likely impact of an Affordable Housing Levy.

The Barker Report on Housing Supply[54] (in the UK) reports an international review of the responsiveness of housing supply to price changes. As the report notes, the estimates vary quite widely and in part at least this may be due to the methods of estimation applied by the authors of the various studies. It notes, however, that

> estimates of the price elasticity of supply of housing in the UK … show a considerable degree of consensus, and suggest that UK housing supply is relatively unresponsive, with output increasing by proportionately less than price (the elasticity of supply is less than 1).[55]

Most commentators seem to be in agreement that typical responses, measured in the form of the *price elasticity of supply*, fall within the range 0.5-1.0.

For the purposes of the present forecasts a range of 0.7 to 0.9 has been assumed.

In the case of commercial development, the analysis below includes reference to a statistical study of changes in the Sydney CBD office sector.

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[54] Barker, K (2004), *op.cit.*

[55] Barker, K (2004), *Interim Report 1* p.42.

4 AMOUNT AND COST OF LEVY

4.1 Calculations by City of Sydney

Preliminary calculations have been undertaken by the City of Sydney to determine the amount that an Affordable Housing Levy would have to yield over time in order to fund the target supply of 2,000 affordable dwellings.

Assuming that the average floor space area of each new dwelling is 100 m^2, a total of 200,000 m^2 of additional space will be required.

The cost of affordable units currently under construction by City West Housing — which is responsible for the supply and management of the affordable housing stock in the Ultimo/Pyrmont and Green Square areas — is approximately \$350,000—\$400,000 per unit (at 2008 prices). The present value of the net contribution from rental income, over a 25 year period, is approximately \$100,000. The deficiency in cost is thus approximately \$280,000 per dwelling on average. This is equivalent to \$2,800 per m^2 of constructed space.

The total sum required to construct 2,000 dwellings would be \$560 million (at 2008 prices).

This amount does include the value of land, although it has to be noted that the City West Housing organisation has benefited from circumstances which may not persist. Although its land purchases have all been "in the open market", for a variety of reasons it has not had to face much competition in bidding for the sites selected for affordable housing.

In general the cost of housing of this type is much lower than the cost of typical private sector developments because:

- ✓ there is no profit element;
- ✓ a not-for-profit organisation benefits from preferential tax treatment and is exempt from certain duties and charges;
- ✓ a simpler standard is adopted which does not include the very many amenities which the private sector increasingly regards as essential to the marketability of its product; and
- ✓ in some cases the units are smaller.

4.2 Form of Levy

There are two main ways of formulating a levy on development activity:

- ✓ as a percentage of development cost; or
- ✓ as an amount per unit of floor space constructed.

The advantages of using the *percentage of development cost* basis are:

- ✓ the amount generated varies with the cost of the development;
- ✓ this form of levy is easily applicable to smaller works subject to development approval
- ✓ this basis is already established in some sections of the *Environmental Planning and Assessment Act 1979* and the *City of Sydney Act 1988* in relation to other permissible levies — i.e. Section 94A and Section 61 respectively.

The disadvantages are:

- ✓ since costs per unit of floor space constructed tend to be higher in higher density and high rise developments, this loads a larger "penalty" onto the more dense development forms and constitutes (to some degree, even if only small) a disincentive to this form of development;
- ✓ development cost is not well defined; there would be an incentive for developers to "under-declare" the cost of works and even though there may be some checks on this for other purposes (such as the collection of approval fees) the resulting basis for contributions might be unreliable;
- ✓ although under this approach the amount levied would vary with the *cost* of the development, it would not vary with the *value* of the development (which includes both site value and development profit).

The scope for evasion is highlighted by experience in the USA. In a newspaper article, Glaeser (2007)[56], a noted academic researcher, has drawn attention to the findings by the local public auditor of widespread dishonesty on the part of developers in declaring the true cost of their development. He recommended as a result that there should be a shift in the State of Massachusetts away from a system in which the developers' obligations to provide affordable housing are related to their profits — defined as revenues *less* costs, the costs being the element that is regularly over-stated in this situation — to one based on a fixed fee per housing unit.

The advantages of using the *amount per unit of floor space* basis are:

- ✓ that floor space can be measured objectively and precisely.

The disadvantages are:

- ✓ that all developments are treated equally on the basis of floor area, no account being taken of variations in either the cost or the value of the development;
- ✓ smaller developments, renovations and refurbishments, for which development approval is required, could be treated harshly (even with a lower threshold, such as the 200m^2 currently under consideration).

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[56] Glaeser, E "Truth in Affordable Housing" *Boston Globe* 12 February 2007.

4.3 Basis for Levy

The City of Sydney is proposing that, as in the case of the Green Square development — for which the rules were originally established by the former South Sydney Council — the basis for calculating the amount payable by each new development would be a percentage of the Gross Floor Area.

The levy would then be payable in the form:

- ✓ *either* of land and suitably constructed space up to the required percentage of the total space within the development as a whole;
- ✓ *or* of an *in lieu* monetary contribution.

However, the preliminary calculations undertaken by the City of Sydney to estimate the likely "cost" of such an impost appear to be inconsistent.

As noted above, in the case of the "direct" dedication of land and constructed space, the City of Sydney has estimated (on a preliminary basis) that about 4 million m^2 of space will be developed over the period up to the year 2030. From this figure, the conclusion has been derived that 5% of space would need to be dedicated to affordable housing to yield the required total of 200,000 m^2 of residential space (equivalent to 2,000 dwellings).

In relation to possible monetary contributions, it has been estimated by the City of Sydney that a levy of $140.00 per m^2 would be needed to yield the required total of $560 million (assuming again that about 4 million m^2 of space will be developed over the period up to the year 2030).

P/P/M Consultants is not in a position to verify the appropriateness of this figure (per m^2). The figure proposed by the City of Sydney at this stage has therefore been adopted as the basis of the relevant forecasts.

4.4 Incentives

It is clear that the cost to developers of these two amounts would be very different — so different in fact that it is unlikely that any developer would be prepared to dedicate space within their own development to affordable housing. The difference arises because the cost to the developer of "dedicated" space includes the loss of profit as well as the loss of space that typically costs much more to develop than the cost incurred by not-for-profit housing organisations. Although there may be some tax benefits to the developer, depending on the specific structure of the developer's finances, these are likely to be much less than the additional cost.

The likelihood that developers will choose to make monetary contributions if they are set below the true value of the space they are developing (per m^2), however, is not necessarily a disadvantage from the perspective of the provision of affordable housing. Monetary contributions allow the not-for-profit providers of affordable housing, who are responsible for the longer-term management and maintenance of the dwellings, much greater control over the location and design of the affordable housing. Moreover affordable housing incorporated into existing market housing developments would be liable for strata charges which would drive up considerably the cost of managing the housing units.

4.5 Caveat

However, while there may be an advantage in fixing a monetary sum per unit area of development which effectively provides developers with an incentive to choose the monetary form of contribution over the direct dedication of space, there are very real dangers in fixing an *amount* in such a way that it is not able adequately to reflect such things as changes in the real costs of providing houses, changes in land costs and the different costs involved in building dwellings at different densities and in different locations.

The formula for monetary contributions *in lieu* of dedicated space needs to be sufficiently flexible to accommodate these issues.

5 IMPACT ON COMMERCIAL AND INDUSTRIAL DEVELOPMENT

5.1 Aim

The proposed levy, if adopted, is to be imposed on all types of development (in excess of $200m^2$) through the City of Sydney local government area.

The aim of this section is to analyse the extent to which commercial and industrial development is likely to be affected by the imposition of a levy.

It should be noted that the proposed levy is additional to other types of impost on development, such as Section 61 payments under the *City of Sydney Act 1998* or Section 94 payments under the *Environmental Planning and Assessment Act 1979* or requirements for the purchase of Heritage Floor Space.

5.2 Alternative Approaches

There are two main alternative approaches to estimating the likely impact of a new impost on development.

The first relies on:

- ✓ establishing the structure of development costs;
- ✓ relating those costs to typical development returns — i.e. the value of completed developments; and
- ✓ assessing, from the significance of the impost for the size of the gap between returns and costs, the likelihood of a consequential impact.

The second relies on the application of measures of the responsiveness of development to changes in cost, derived from studies of similar markets elsewhere or of the local market.

5.3 Structure of Costs

5.3.1 Normal Costs

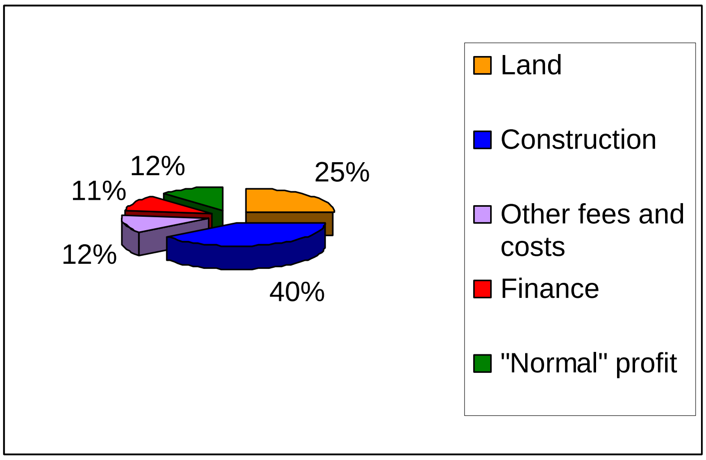
The ratio between the costs of development and the value of completed developments may vary:

- ✓ between commercial and residential development;
- ✓ between areas within the City of Sydney boundary— such as between Sydney CBD and other areas, including Green Square; and
- ✓ at different points in the business or property cycle.

However, over the medium term the extent of the variation is probably small.

The typical structure of development costs in the private sector is illustrated in Figure 5.1.

Figure 5.1 Typical Cost Structure for Commercial and Residential Development in Central and Inner Sydney



Source: P/P/M Consultants estimates

The profit included in this structure of costs may be regarded as:

- ✓ the minimum level of profit, as assessed prior to the development, that would induce a developer to go ahead with the project; or
- ✓ the level of profit that might be expected to accrue to developers (*before tax*) in a "normal year" — that is, a year in which the market for development is not experiencing exceptional "boom" or "slump" conditions.

5.3.2 Cyclical Swings

When the market for commercial and/or residential property is buoyant and there is significant actual or prospective demand for new space, it is likely that the gap between the costs of development and the value of completed developments is at its largest. By contrast when the market is in recession, the gap may be quite small. In general it is likely that additional imposts will be absorbed more readily — albeit with some possible response — in times of "boom" than in times of "slump".

The extent of "booms" and "slumps" may vary from time to time; but it is clear that market prices may vary by so much that the normal level of profit disappears entirely when the market for development is in recession.

5.4 Cost Impacts

5.4.1 Prima Facie Impacts

The extent to which an impost on development costs is transmitted to developers' profits depends in part on the extent to which it can be "passed back" to the owners of land — thereby reducing the cost of land in the overall structure of development costs. The extent to which this occurs, or is likely to occur, remains a matter of controversy. In the long run the historical evidence suggests that development does continue following the establishment of new charges on development, though whether it would have continued at a greater pace or extent in the absence of such charges is open to question.

The most plausible assumptions are that:

- ✓ in the longer run most well-established charges are passed back to land owners but the pace and extent of development are also affected to some extent; while
- ✓ in the short to medium term, the costs have to be absorbed by developers and therefore have a more direct impact on the pace and extent of development, especially when, for other, unconnected reasons the demand for new space is low and the market is in recession.

The length of time required for a market to adjust to new charges depends on the structure and form of land ownership. It depends also on the prevailing market conditions — notably the extent of the "boom" or "slump" in demand and prices. Where developers themselves have owned land (or held rights over land) for a considerable period of time, during which its value has grown, they may be more prepared to go ahead despite increased charges. However, where land is newly released by private or institutional investors, it may take time for the new situation to be accepted by sellers and buyers.

The typical structure of costs outlined above suggests that the scope for development to absorb new charges equivalent to, say, 5% or 2% of typical costs will vary significantly in different market conditions. The likely scale of the impacts is summarised in Table 5.1.

Table 5.1 Predictable Impacts due to Cost Changes

Cost Impost	5%	2%
Boom	Very Little Impact	No Impact
Normal	Some Detectable Impact	Very Little Impact
Slump	Significant Impact	Detectable Impact

Source: P/P/M Consultants estimates

5.4.2 Other Influences

The analysis that follows rests on the assumption that changes in costs are transmitted directly to output decisions.

In reality:

- ✓ decisions about development are based on *expectations* about costs, market conditions and returns; and
- ✓ other very important factors influence, and in some cases carry more weight in, the decision process.

The following paragraphs address these issues.

5.5 Continuous Measures of Response

A more traditional method of measuring the response of development to changed conditions is through the *elasticity of supply* — that is, the expected relationship between a percentage change in the effective price received for development (in the form either of sale proceeds or rents) and the willingness of suppliers to continue to supply space.

In this context a change in the costs of development, such as the inclusion of a new impost, may be regarded as equivalent to a lowering of the proceeds of development, that is the price received for it.

The response in a particular area will reflect the extent to which, viewed from the perspective of the *demand* for space, that area is regarded as having "unique" characteristics or has effective "competitors" elsewhere. In the case of the City of Sydney, the extent of the competition from other metropolitan locations will depend in part on the policies pursued by other Councils and by the State government.

In relation to both commercial and residential development the central parts of the City of Sydney (including those close to the Harbour) have unique environmental characteristics which will continue to carry significant weight whatever the competition from developments elsewhere. In relation to commercial development, moreover, the competitive advantage arises less from these environmental characteristics than from the in-built benefits (for a range of activities) of close proximity to other activities and the accessibility afforded by being at the centre of the transport hub. Nonetheless, as is generally recognised, there are a range of activities which could and would be located in other less expensive locations if the rise in costs in central Sydney exceeds the benefits of the location.

While other parts of the City of Sydney benefit from their proximity to the Sydney CBD, *inter alia*, they also face more direct competition from other inner city locations that are not within the City of Sydney area.

Similarly, while many of the activities in the City of Sydney that occupy "industrial" space are there because of specific locational advantages — such as (at least for a significant number of trades) proximity to the CBD or to Sydney Airport — it is also true that there are many alternative locations outside the City of Sydney which compete with the industrial zone in terms of the price and availability of space.

International evidence suggests generally that over the business cycle the response of development to changes in the effective price received for space is less marked than the change in price, in both the upward and the downward direction — i.e. a given percentage change in prices generates a smaller percentage change in the supply of space.

The likely response in the residential development sector, which is also summarised below, is discussed in greater detail in the following Section.

In relation to commercial development, and especially office development, in the central parts of the City of Sydney, it is notable that there are significant swings in the level of "new supply". However, statistical analysis of the CBD office market (as elsewhere) suggests strongly that changes in the market price (or value) of space have only a secondary effect on the level of supply. The primary determinant of the level of output of new office space is the vacancy rate. The vacancy rate about 2 years prior to the coming on stream of new office space strongly influences the planning and construction of new space which then becomes available after a lag. Movements in office rents are themselves directly related to vacancies. It is therefore difficult to separate the influence of the two factors on supply. But vacancies are clearly the more significant determinant; and assessed in the light of this, the *separate and additional* influence of office prices and rents is much less significant.

The statistical analysis of office supply in Sydney CBD is summarised in Appendix C. While the results are not robust, due to the small sample size, they are consistent with the view that "price" (or rent) is only one of the considerations that influences the supply of space. The analysis implies a response to a 1% change in "price" of 0.6–0.7%.

For the purposes of the present study the responsiveness of commercial and industrial development to changes in cost or price in a "normal" year has been assumed to fall within the range 0.6–0.9. However, in recessionary conditions this could increase by a factor of at least 2, while in "boom" conditions the responsiveness is at least halved.

5.6 Statistical Nature of Impacts

The response to changes in development conditions - such as the imposition of a levy - is bound to be "statistical" in nature: that is to say, while it may be possible to make a reasonable guess about the level of response across a broad area (such as Green Square or the Central Area), it would be wrong to assume that this response will be exactly the same across all developers and all sites. Indeed that would be most odd. Nor is it likely that every developer will behave like the "average". For example, if the response were to be a 5% reduction in the supply of space, this will not mean that every developer reduces supply by 5%. It is much more likely that, across a fairly wide area (but one that is homogeneous in composition and circumstances), a few developers might reduce their output slightly while one or two might choose to drop out altogether - with the effect that the "global" response in that area could be expected to be the 5% reduction.

It follows that the findings applicable to different broad areas cannot be applied simplistically to individual developments.

5.7 Forecasts — Background

5.7.1 Benchmark

The benchmark for assessing the impact of a possible levy is the *difference* between the forecast outcomes *with* an Affordable Housing Levy and the forecasts *without* any levy.

It is important to note that this measure of the impact does not relate to the difference between the future situation with a levy and the present situation in which there is none.

5.7.2 Rates of Levy and Scenarios

Forecasts have been prepared of the likely impact on development of four possible rates of Affordable Housing Levy, as follows:

5 %, 4 %, 3 % and 2 %.

Two scenarios have been considered in the case of commercial and industrial development. Both assume that developers choose to pay the levy in the form of a monetary contribution. They differ in the basis on which the amount of the monetary contribution is assessed. In

- ✓ <u>Scenario A</u>: the Affordable Housing Levy is paid as a monetary contribution which is assessed at the full value or cost to the developer of the required percentage of space; while in
- ✓ <u>Scenario B</u>: the Affordable Housing Levy is paid as a monetary contribution which is assessed as a share of the estimated cost of the affordable housing. For the purposes of the present study, as noted in Section 4.1 above, the cost of funding 2,000 affordable dwellings has been assessed by the City of Sydney (in a preliminary calculation) at $560 million (at 2008 prices). This amount has been shared across the

approximately 4 million m^2 of space likely to be developed during the period up to 2030. Under this scenario, therefore, the levy amounts to \$140 per m^2 (when the levy is 5%), with appropriate adjustments for lower rates of levy.

It is thought extremely unlikely that the developers of commercial or industrial would choose to dedicate space within their development in preference to making a monetary contribution.

5.7.3 Areas

Forecasts have been prepared for the two main residential and commercial areas under review: Central Sydney; and Green Square. In addition forecasts of the possible impact on industrial development have been prepared for the industrial zone in the southern part of the City of Sydney, which falls within the Green Square area (as defined).

The definition of the areas is shown in Appendix A.

5.7.4 Future Growth of Commercial and Industrial Activity

The growth of activity within the City of Sydney, which will form the basis of changes in the demand for dwellings and other space, has been based on projections prepared by the City of Sydney's Economic Development Unit for the City of Sydney's Strategic Planning exercise, *Sustainable Sydney 2030*. The detailed figures are included in Appendix B.

The figures have been modified by applying a notional "economic activity cycle", as shown in Figure 5.2, based on P/P/M Consultants' estimation of likely future prospects.

In the present climate of economic uncertainty, the aim of the "imposed" cycle is to illustrate the potential sensitivity of the impacts to surrounding market conditions. Not too much attention should be paid to the figures for specific years.

The total annual increase in commercial and industrial jobs in the City of Sydney over the period 2009 to 2020 is illustrated in Figure 5.3. In the longer term, the trend is downward due primarily to the ageing of the population and the reduction in additions to the labour force, taking one year with another.

Figure 5.2 Simplified Cyclical Pattern of Activity

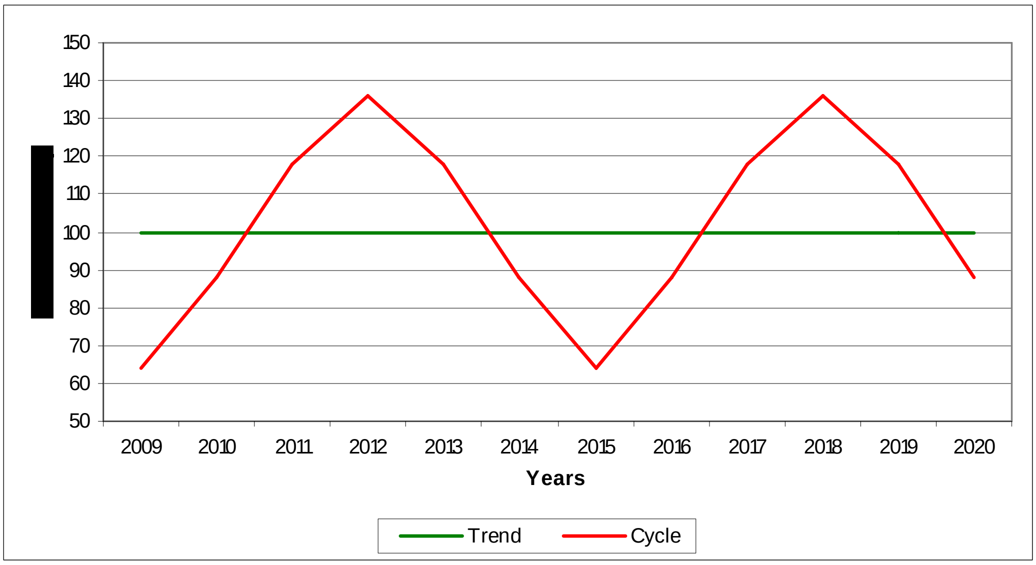
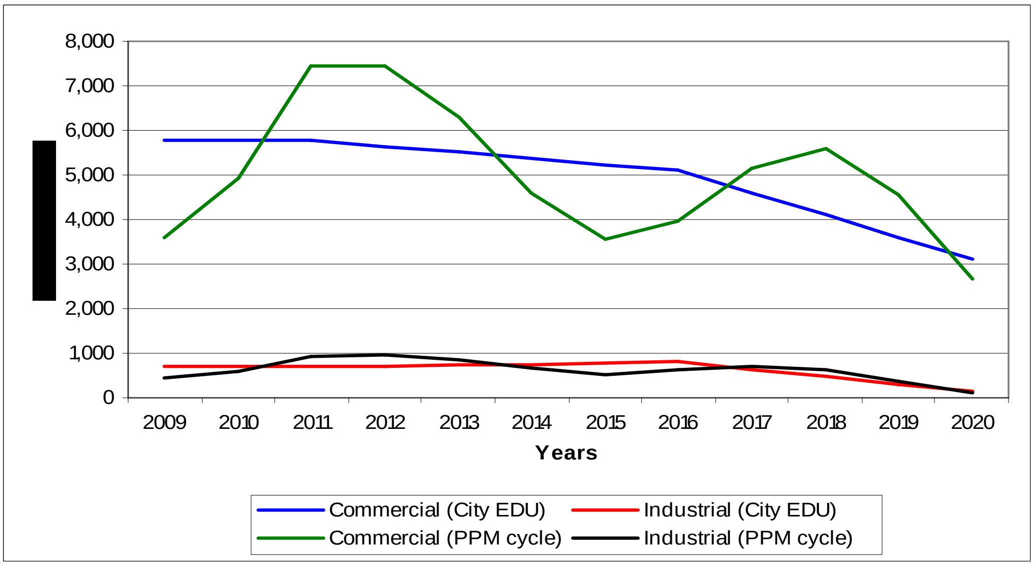
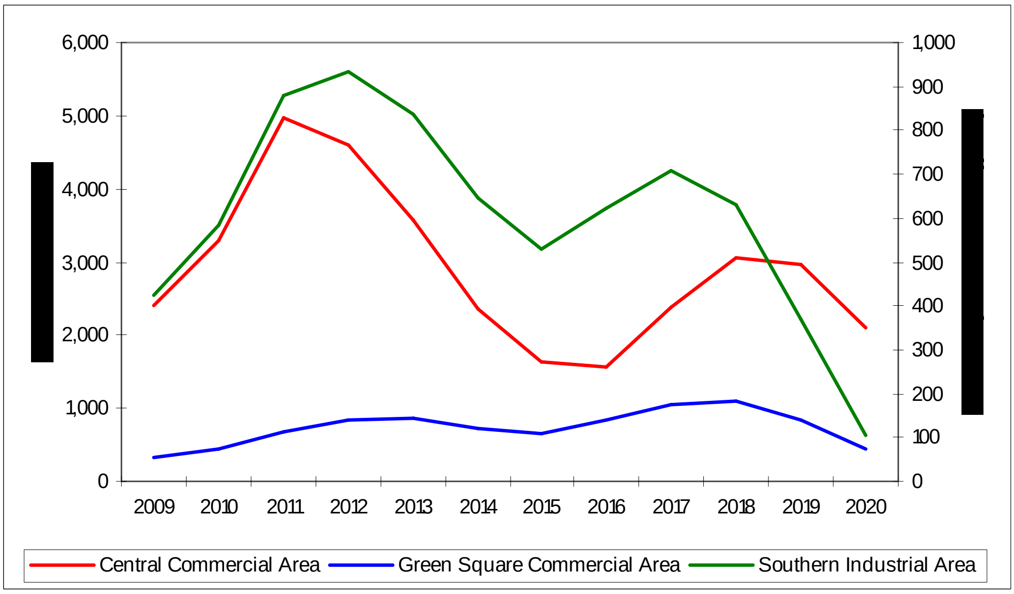


Figure 5.3 Forecast Increment in Commercial and Industrial Jobs in the City of Sydney as a whole, 2009–2020



Source: The City of Sydney report for *Sustainable Sydney 2030*; and P/P/M Consultants estimates

Figure 5.4 Annual Job Increases in Selected Areas, 2009–2020



Source: P/P/M Consultants forecasts

The forecast annual increment in commercial and industrial employment in the Central and Green Square areas (including the Southern Industrial Area) is shown in Figure 5.4.

5.8 Forecast Impacts

The impact of an Affordable Housing Levy on Commercial and Industrial development in the Central and Green Square areas is summarised in Table 5.2.

Note that the forecast impact varies from year to year because it is expected to be sensitive to the rate of change of economic activity — having a less significant impact in "boom" periods and a more significant impact in "slump" conditions. The year 2009 is assumed to be one in which the level of economic activity is low. The year 2012 is taken to be a "boom" year. The year 2017 demonstrates outcomes when conditions are improving after a "slump" and the final year, 2020, is assumed to be close to recession.

Table 5.2 Impact of Affordable Housing Levy at varying rates on Development in the Central and Green Square areas, 2009 to 2020

	Central Area	Green Square Area	
	Commercial	Commercial	Industrial
Impacts with 5% AH Levy compared to No Levy			
2009	-10.5%	-12.0%	-13.5%
2012	-1.4%	-1.6%	-1.8%
2017	-2.6%	-2.9%	-3.3%
2020	-7.1%	-8.1%	-9.1%
Impacts with 4% AH Levy compared to No Levy			
2009	-8.3%	-9.5%	-10.7%
2012	-1.1%	-1.3%	-1.4%
2017	-2.0%	-2.3%	-2.6%
2020	-5.6%	-6.4%	-7.2%
Impacts with 3% AH Levy compared to No Levy			
2009	-6.2%	-7.1%	-8.0%
2012	-0.8%	-1.0%	-1.1%
2017	-1.5%	-1.7%	-1.9%
2020	-4.2%	-4.8%	-5.4%
Impacts with 2% AH Levy compared to No Levy			
2009	-4.1%	-4.7%	-5.2%
2012	-0.5%	-0.6%	-0.7%
2017	-1.0%	-1.1%	-1.3%
2020	-2.8%	-3.1%	-3.5%

Note: Green Square Area incorporates the Southern Industrial Area.
Source: P/P/M Consultants estimates

The impact on commercial development is somewhat less significant in the Central area than in the Green Square area because the Central area has greater "uniqueness" and therefore is less affected by potential competitive areas (although not totally immune to competition).

The impact on industrial development is more significant than on commercial development because it is more open to competition from sites outside the area.

The difference in impact between payment in the form of monetary contributions at full value or as a share of the anticipated cost of providing affordable housing is shown in Table 5.3.

Table 5.3 Impact of Affordable Housing Levy paid in different ways on Development in the Central and Green Square areas, 2009 to 2020

	Central Area	Green Square Area	
	Commercial	Commercial	Industrial
Impacts with 5% AH Levy compared to No Levy			
Scenario A: *Levy paid as Monetary Contribution, Full Value*			
2009	-10.5%	-12.0%	-13.5%
2012	-1.4%	-1.6%	-1.8%
2017	-2.6%	-2.9%	-3.3%
2020	-7.1%	-8.1%	-9.1%
Scenario B: *Levy paid as Monetary Contribution, Cost Share Basis*			
2009	-0.2%	-0.4%	-1.0%
2012	0.0%	-0.1%	-0.1%
2017	0.0%	-0.1%	-0.2%
2020	-0.1%	-0.3%	-0.7%
Impacts with 2% AH Levy compared to No Levy			
Scenario A: *Levy paid as Monetary Contribution, Full Value*			
2009	-4.1%	-4.7%	-5.2%
2012	-0.5%	-0.6%	-0.7%
2017	-1.0%	-1.1%	-1.3%
2020	-2.8%	-3.1%	-3.5%
Scenario B: *Levy paid as Monetary Contribution, Cost Share Basis*			
2009	-0.1%	-0.2%	-0.4%
2012	0.0%	0.0%	-0.1%
2017	0.0%	0.0%	-0.1%
2020	0.0%	-0.1%	-0.3%

Note: Green Square Area incorporates the Southern Industrial Area.
Source: P/P/M Consultants estimates

The differences at the 4% and 3% levy rates fall between those shown above.

5.9 Other Influences

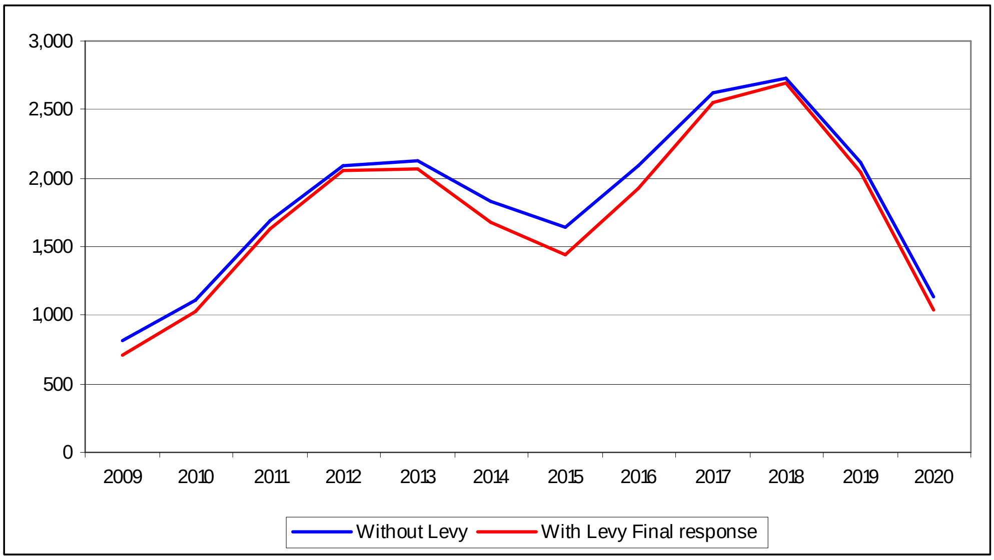
It is important to note, however, that the proportionate changes in the volume of development due to a possible levy noted above do not represent the extent to which development is likely to vary *in total* from year to year. They represent only the *additional* impact that a levy would have.

As noted above, development activity is affected by a variety of factors including interest rates, economic prospects and existing vacancies. Together these have a much more significant impact on changes in the volume of development from year to year than a levy would.

The extent of the impact of a levy in the context of the wider swings in economic activity is illustrated in Figure 5.5, which takes the example of commercial activity in the Green Square area under the conditions of Scenario A.

The scale of the impact cannot be separated from the surrounding economic conditions since it varies with those conditions.

Figure 5.5 Annual Variation in the Volume of *New* Commercial Space Provided *with* and *without* a levy — *Green Square Area*.



Source: P/P/M Consultants forecasts

5.10 Interpretation

The impact of an Affordable Housing levy at the 5% rate, paid in the form of a monetary contribution assessed at the full cost of the developed space, on commercial development in the Central area would initially be quite significant. If the impact on the volume of development is interpreted as having an equivalent impact on employment, it could be expected to lead to a loss of about 70–250 *additional* jobs each year — about 1,500 in total over the period 2009 to 2020.

In the Green Square area, by contrast, the proportionate impact on commercial development would be slightly larger; but because the overall volume of development is expected to be much smaller, the impact would be less significant. It would amount to the loss of about 3–15 *additional* jobs per year — about 75 in total over the period 2009 to 2020.

If the rate at which the levy was set was reduced to 2%, it could be expected to lead to a loss of about 15–100 *additional* jobs each year in Central Area commercial activity — about 600 in total over the period 2009 to 2020. In the Green Square commercial area, however, the loss would be small, amounting to perhaps 30 jobs over the period 2009 to 2020.

By contrast, even if the levy was set at the 5% rate and assuming that the levy was paid in the form of a monetary contribution assessed as an appropriate share of the anticipated cost of providing 2,000 units of affordable housing (here assumed to be $140.00 per m², at 2008 prices), there would be almost no detectable impact in either area.

The analysis suggests that, on the basis of the assumptions outlined above, the impact on industrial development would be somewhat greater, assuming that the levy was paid in the form of a monetary contribution assessed at the full cost of the developed space. This is because in many cases the developers of industrial space would be able to find adequate space elsewhere that was not subject to the levy.

Set at the 5% level, the levy might cause the loss of about 8% of the anticipated growth in developed area in each year, equivalent to the loss of about 10–75 *additional* jobs per annum or 425 jobs over the period 2009 to 2020 in the industrial zone in the southern part of the City of Sydney.

However, this loss of industrial development and employment would fall proportionately if the levy were set at lower levels. And if the levy were paid as a monetary contribution assessed on a cost share basis (at $140.00 per m², at 2008 prices, for the 5% levy rate with appropriate adjustments for the lower rates) the impact would be negligible.

6 HOUSING MARKET IMPACTS

6.1 Background

6.1.1 Categories of Impact

An Affordable Housing Levy will have two possible impacts on the residential sector:

- ✓ impacts on the housing market — that is, on the price and availability of housing for residents; and
- ✓ impacts on housing development — that is, the provision of new dwellings within the City of Sydney area.

These are considered separately, although they are linked.

6.1.2 Benchmark

The benchmark for assessing the impact of a possible levy is the *difference* between the forecast outcomes *with* an Affordable Housing Levy and the forecasts *without* any levy.

It is important to note that this measure of the impact does not relate to the difference between the future situation with a levy and the present situation in which there is none.

Throughout the analysis the two distinct parts of the housing sector will be referred to as the Affordable Housing sector and the Market Housing sector. There is no consideration in this report of the Social Housing sector.[57]

6.1.3 Geographical Analysis

The analysis of the impact of an Affordable Housing Levy on housing affordability and development has been undertaken in relation to a number of distinct housing market areas within the City of Sydney.

[57] The public housing component of the overall supply has been excluded from the analysis, based on figures from the 2006 Census.

These sub-areas are based on the market areas identified by the City of Sydney for the purposes of population and employment projections. The areas are as follows:

Glebe	Newtown
Green Square	Oxford
Harbour	Redfern
Haymarket	Surry Hills
Kings Cross	Ultimo.

The composition of the areas analysed in the present study is defined in Appendix A. Note that for the substantive analysis the Harbour and Haymarket areas have been combined to form a single Central area.

6.2 Basic Considerations

The impact of an Affordable Housing Levy on the housing market will depend on a number of critical elements. These elements and the assumptions made about them are detailed below.

6.2.1 Residential Land Supply

The amount of land available for residential use and for future residential development will have a direct impact on the impact of a possible levy.

For the purposes of this study, following discussion with the City of Sydney, it has been assumed that the same amount of land will be zoned for residential use (including future residential development) *with* and *without* the levy. It is also assumed that the density of Affordable Housing development will not differ markedly from that of Market Housing, in the same or similar areas.

This means that in effect the total amount of residential space is fixed, irrespective of the possible institution of a levy.

At the same time it might be assumed that the *location* of the land zoned for housing would remain the same; but this might not always be the case. Where the developers of commercial or industrial land are required to contribute an Affordable Housing Levy and choose to do so in the form of the direct dedication of space, it could be that new residential space will be provided on sites that had not previously been zoned for housing. If this were deemed unsuitable, it might be possible through negotiation to persuade the developers to make a monetary contribution *in lieu*. However, it is possible also that the developers might refuse and therefore could only discharge their legal obligations on site. This would have the effect of *increasing* the amount of residential land in the area in question — which, by the same token, (to meet the assumption outlined above) would require a reduction in the amount of land zoned for housing elsewhere in the immediate area or in other parts of the City and a compensating increase in the amount of land zoned for commercial or industrial purposes. If it were deemed essential —for example, in Central Sydney for reasons of employment and economic growth — to maintain the volume of "employment" land in these areas, then the amount of land zoned for "market" residential use would have to be reduced.

This set of circumstances has not been considered further; and the location of future residential development is assumed to remain the same throughout the analysis.

6.2.2 Affordable Housing Clients

It has been stated that an essential aim of the provision of affordable housing — which is to be financed in part by the Affordable Housing Levy — is to provide housing within the City of Sydney (or within designated parts of the City of Sydney) for people, especially so-called "key workers", who could not otherwise afford to live in the area. However this approach is controversial. As noted by SGS (2007), Yates *et al* threw doubt on the need for housing for key workers, stating that

> initiatives focussed on low income households … are likely to be the most successful in alleviating housing affordability concerns.[58]

It is appropriate to consider alternatives.

Depending on the policy pursued by those will control entry to the new affordable housing, two possibilities exist:

- ✓ that many or most of those who will eventually find their housing in the Affordable Housing sector would otherwise have found housing of some type elsewhere in the City of Sydney; or
- ✓ that all or most of those (potentially) housed in those parts of the Affordable Housing sector which are to be developed using the proceeds of the Affordable Housing Levy would *in other circumstances* have found their housing *outside* the City of Sydney area.

These two possibilities would have different implications for future housing affordability in the Market Housing sector.

For the purposes of the present report, it has been assumed that all the prospective tenants of the newly-provided affordable housing will come from *within* the City of Sydney.

The location of these prospective tenants *in the absence* of new affordable housing has been based on the distribution of those in "Rental Housing Stress"

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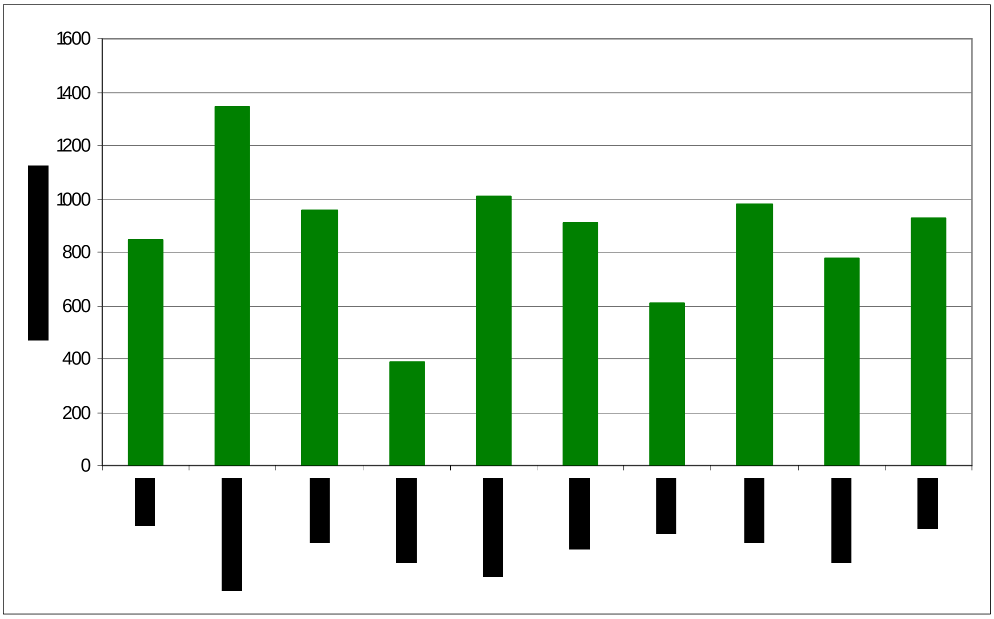
[58] SGS (2007) *Baseline Indicators Working Paper – Sustainable Sydney 2030*, p.44. Yates, J *et al* (2006) "Are housing affordability problems creating labour shortages?" *AHURI Research and Policy Bulletin – Issue 74* AHURI.

by suburb, as identified by ***.id*** *(informed decisions)* in a report to the City of Sydney.[59]

The distribution is summarised in Figure 6.1 below. (Note: the distribution has been assigned to the basic study areas by P/P/M Consultants, without further detailed analysis of Census data.)

Figure 6.1 Location of Households in Rental Stress by Housing Market Area, 2006 — *no. of households*



Source: P/P/M Consultants estimates, based on **.id** (June 2008).

6.2.3 Location of Housing

If the new affordable housing that is generated by a levy were to be provided through the dedication of land or space — as discussed above —the affordable housing would be provided *by definition* in the same location as the development through which it is made available. Where this development was residential, the affordable housing would be provided close to other residential development. Where the initiating development was commercial or industrial, it would be provided in those areas.

Hitherto, despite discussions in one or two cases, the developers of residential development subject to existing levies — in the Pyrmont/Ultimo and Green Square areas — have all opted to meet their obligations through monetary contributions.

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[59] **.id** (informed decisions) *Sydney Housing Analysis (for Sydney City Council)* June 2008.

At the present time it appears much more likely that the developers of commercial and industrial sites would choose to meet their obligations through monetary contributions "in lieu" than through the dedication of space. In these circumstances it is open to those who construct and manage the stock of affordable housing to locate their new supply in different sub-areas within the City of Sydney from those where the initiating development is located. There are a number of reasons why they might choose to do so; for example —

- ✓ the chosen area is deemed to be more suitable for residential development than the "initiating area" on social or amenity grounds;
- ✓ the price of land might be less, thus facilitating more spacious or better-designed housing for the affordable sector or the provision of improved amenities;
- ✓ it might be possible to generate a larger supply of affordable housing.

Thus the impact of a possible levy will be affected significantly not only by whether developers choose to discharge their obligations *in cash* or *in kind*, but also by where the new affordable housing made possible by the levy is located.

6.2.4 Implications

The implication of the previously noted assumptions — that the area and density of residential land use will remain unchanged and that the new affordable housing stock may, or may not, be provided in the same area as the development which is the source of the levy — is that the housing market in some parts of the City of Sydney may be affected significantly, while others are not (or are less) affected, depending *not* on the location of the initiating development — in the case where developers choose to make monetary contributions, rather than to dedicate land or space — *but* on the decisions taken by those responsible for constructing and managing the new affordable housing stock.

The forecasts of impact that follow have been based therefore on two different assumptions about the location of the affordable housing, as follows:

- ✓ *In Situ* location: in this case it is assumed that the development of the new affordable housing stock occurs *in the same area* as other *residential* development. This could arise *either* because the developers choose to make space directly available *or* because the "in lieu" monetary contributions are set at a level which makes it possible to provide affordable housing at an economic cost in those areas (and a decision is taken that they are the most appropriate areas for the requisite new supply).

  Note, however, that the *new* affordable housing is assumed to be located only in areas of *residential* development even though some of the contributions which make it possible are derived from non-residential development. This is consistent with the assumption noted in Section 5 above that all the developers of commercial and industrial space will most likely choose to make a monetary contribution rather than to locate affordable housing within their projects.

- ✓ Clustered location: in this case it is assumed that the new affordable housing stock will be provided in designated areas irrespective of where the development from which the levy has been derived is located. This would of course only be possible if developers choose to make "in lieu" monetary contributions rather than to dedicate space.

6.3 Market Housing Supply and Demand Adjustments

As a consequence of the two main assumptions — that the supply of land zoned and available for new housing development is unchanged and that the new affordable housing is located either where other residential development is occurring or in designated clusters — there will be a number of changes in the supply and demand for Market Housing which will have implications for its "price" and availability. These are considered below.

Supply-side Adjustments

- ✓ *Land Supply*: the use of land for new affordable housing will reduce the supply available for *new* market housing. As a consequence the total amount of market housing will diminish by the end of the period.

  The location of this reduction in supply will depend on whether the new affordable housing is provided *in situ* or in clusters.

- ✓ *Direct Impact of Levy*: the levy is expected to have a direct impact on the willingness of developers to undertake residential development. This will also act to reduce the available supply of market housing, compared to the amount that would have been available if there were no levy.

- ✓ *Released Stock*: At the same time, those fortunate enough to be allocated space in the newly-provided Affordable Housing — being assumed all to have originated from within the existing City of Sydney — will "release" dwellings that they would otherwise have occupied.

  Since these households are *by definition* less well-off, it is likely that much of this stock will be of relatively poor quality. However, in the context of the other changes anticipated in the housing market, it is assumed that this stock will be available for renovation or "gentrification" to bring it up to the standard required for the expected level of demand for market housing. This will be *in addition* to any forecast supply of new market housing.

- ✓ *Import and Export of Affordable Housing Tenants*: In some areas the number of *new* affordable dwellings may be *less* than the number of tenants originating in the area. In this case additional supply will be available. In other cases the number of *new* affordable dwellings may be *more* than the number of tenants originating in the area. In this case there will be a reduction in the amount of space available for *new* market housing.

- ✓ *Indirect Impact on New Residential Development*: This will arise from the response of developers to the changes in the price of housing that result from other changes in the demand for and supply of market housing noted above and below.

Demand-side Adjustments

- ✓ *Loss of Affordable Housing Tenants*: The demand for market housing will be reduced to the extent that some households that would otherwise have found their housing in the market sector will now be allocated affordable dwellings. The impact on different areas will depend on the location of those who gain access to the new affordable housing.
- ✓ *Import/Export of "Displaced" Households*: Where, by comparison with the level of demand in the absence of a levy and taking into account the movement of some households into the affordable housing sector, there are insufficient *new* dwelling spaces in particular areas to house the anticipated level of demand for market housing, some households will be "squeezed" out and will have to find housing in other parts of the City of Sydney area. The "import" of this amount of demand into other areas will constitute an addition to the demand for market housing that might otherwise be expected.

In this context therefore there are two possible measures of the impact of a levy on housing supply:

- ✓ *Direct Impact*: This measures the direct effect that a levy is expected to have on the willingness of developers to provide *new* dwellings in the market housing sector.
- ✓ *Overall Market Impact*: This summarises the final impact on the supply of market housing, taking into account the various effects on both the supply and the demand sides of the market.

6.4 The "Price" of Housing and Affordability

In the market housing sector, the supply and demand adjustments noted above will be reconciled in each sub-area by an appropriate change in the "price" of housing. The change in price has three components:

- ✓ the first is the adjustment required to take into account the loss of space to Affordable Housing and the consequent (but not necessarily) equal reduction in the demand for housing;

- ✓ the second is the adjustment to accommodate the response of the developers of *new* market housing to the levy; and
- ✓ the third is the subsequent response of those developers to the changed prices in each sub-area (which typically will offset at least to some degree the impact of their initial response to the imposition of a levy).

Within each sub-area, however, the amount of new residential development — combining both market and affordable housing — will be limited by the amount of land zoned for new development.

The resulting change in generic "prices" relates both to rents in the investment sector and to house prices in the owner-occupied sector.

In reality, rents in some areas may rise or fall by more than house prices, depending on the composition of the demand for housing and the available supply, and *vice versa*. The generic price is intended only to indicate the likely broad market outcome.

No attempt has been made in this study to distinguish between the impacts on tenants and owner-occupiers or on different income or households types.

The forecast impact on "prices" should therefore be regarded as a broad measure of the possible impact of a levy on housing affordability rather than a precise measure of the impact on specific population groups.

6.5 Detailed Analysis

The following paragraphs illustrate the method used to determine the impact of an Affordable Housing Levy on the price and supply of housing. The details are shown in Table 6.1.

The adjustments are analysed in two stages. In the first stage the immediate impact of the levy on the availability of capacity for new dwellings and on the demand for them is calculated. Changes in willingness of developers to provide new market housing are assessed.

In the second stage the price change necessary to bring the demand and supply into equilibrium is calculated. The impact of this price change on the supply of new market dwellings is included in the analysis. The implications for the "import" or "export" of households into the area's market housing sector are identified.

The supply of new market dwellings is subject to the availability of zoned land capacity.

Table 6.1 Illustrative Example of Assessment Method

Supply Side		Demand Side	Zoned Capacity	
Pre-existing Stock	8,815		New AH Stock	27

New Stock *(without AH levy)*	212			New Market Stock	183
Total Stock (Supply = Demand)	9,027	(Demand = Supply)	9,027	All New Stock	210
First Round Adjustments				Capacity (= *projected new stock without AH levy*)	212
Supply-Side Reduction to make space for AH Dwellings	-27	Demand-Side Reduction due to AH allocation	-19	Spare capacity *(minimum threshold 0)*	2
		Initial Market Demand	9,007		
Direct Levy Impact					
Development Response to Levy	-2				
Initial Market Supply	8,997				
Second Round Price Adjustment					
Price Change	0.16%		0.16%		
Response to Price Change					
		Market Demand Change	-0.11%		
Market Supply added in response to price change	0	Import (+) or Export (-) of Market Households	-10		
Final Market Supply	8,997	New Demand Level	8,997		

Note: figures may not sum exactly due to rounding.

Source: P/P/M Consultants estimates

In this example the stock of market housing in the area at the beginning of the year in question has been calculated to be 8,815 dwellings. In line with the City of Sydney's projections, 212 new dwellings are forecast to be added to the stock in that year. At this point, *without a levy*, demand and supply would have been in equilibrium. Since 27 affordable dwellings are now forecast to be built in that year in the area (if there is a levy), there will be that much less space for market housing than *without* a levy. At the same time 19 households who would otherwise have lived in the area are assumed to gain access to the new affordable dwellings.

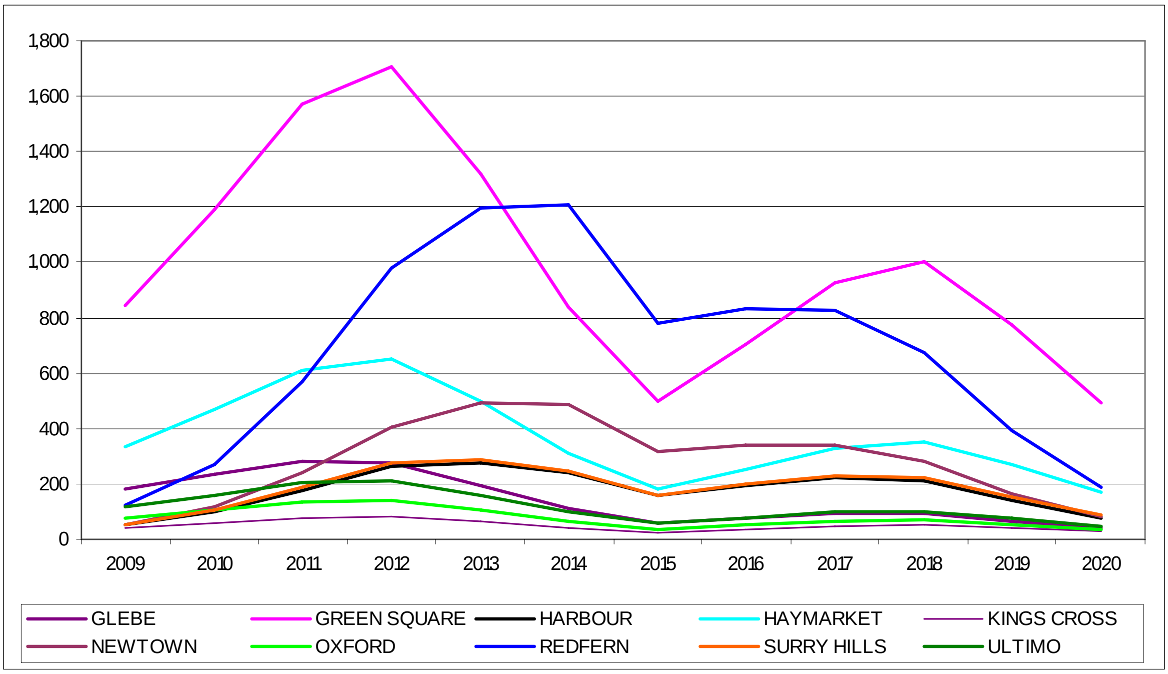
The initial reaction of the market housing suppliers to the levy is predicted to be a small reduction in supply equivalent to 2 dwellings. Overall therefore there is now an imbalance between the demand for 9,007 dwellings and the available supply of 8,997 dwellings. A small price *increase* equivalent to 0.16% of the prices *without* a levy is sufficient to bring demand and supply into equilibrium. It is too small to induce the suppliers of *new* market housing to add more to the supply; but it does reduce the demand by 10 households. These households are assumed *either* to find their housing in other parts of the City of Sydney *or* to join the overall number of households who cannot find housing anywhere in the City of Sydney *in that year* and so must look elsewhere (though sufficient housing to accommodate them would most likely be available by the following year).

After the adjustments on the demand and supply sides of the market the total number of *new* market and affordable dwellings combined will be slightly less than the total predicted *in the absence of a levy* and therefore it is assumed that there will be sufficient zoned capacity for the new housing in these changed circumstances.

6.6 Dwelling Supply Projections

The dwelling supply projections, in the absence of an Affordable Housing Levy, which underlie the analysis of impacts, are based on projections prepared by the City of Sydney for the *Sustainable Sydney 2030* strategic planning study. The detailed figures are shown in Appendix B. They are illustrated in Figure 6.2 below.

Figure 6.2 Projected Supply of New Dwellings *without an Affordable Housing Levy*, by housing market area, 2009 to 2020



Source: The City of Sydney and P/P/M Consultants forecasts

6.7 Source and Destination Locations

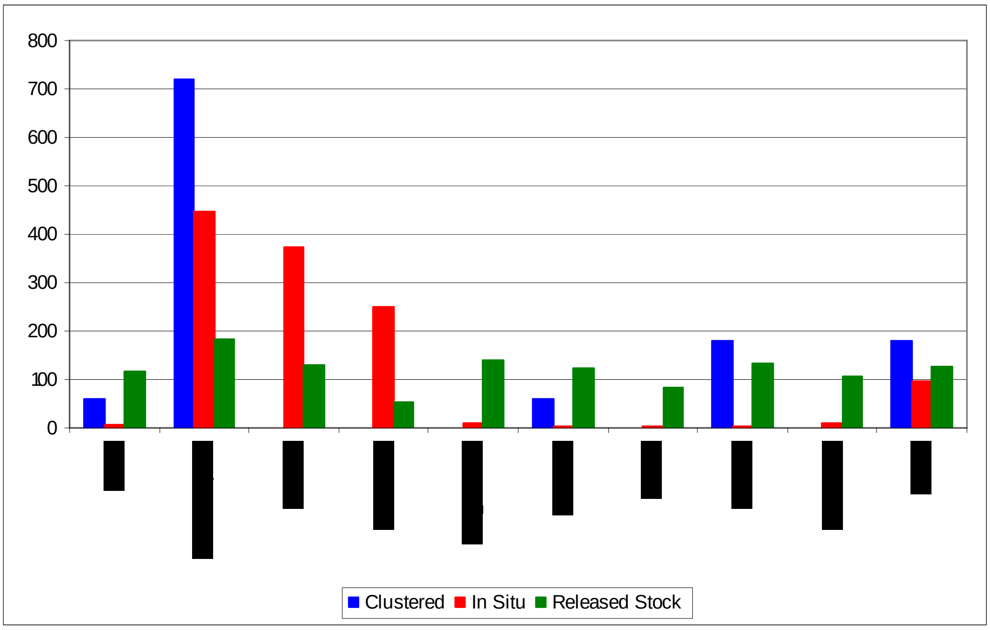
As noted above, the source and final locations of those who are able to move into the newly-provided Affordable Housing have direct implications for the final impact on supply and affordability.

The specific assumptions are illustrated in Figure 6.3 below.

The "Released Stock" included in Figure 6.3 refers to the market housing previously occupied by those in rental stress (as shown in Figure 6.1 above) who, it is assumed, are now eligible to move into the newly provided Affordable Housing.

The clusters of Affordable Housing, which are illustrated in Figure 6.3 below, are intended only to be illustrative. They do not reflect any known or prospective policy decisions about where future affordable housing will be provided. The subsequent analysis is designed merely to demonstrate the implications of a more compact distribution of newly-provided affordable dwellings. The *in situ* alternative reflects the forecast geographical distribution of market housing in the absence of a levy.

Figure 6.3 Location of Newly-Provided Affordable Housing and of Stock Released by households provided with affordable housing, 2009 to 2020



Source: P/P/M Consultants estimates

It has been assumed that 60% of the planned total of 2,000 new affordable dwellings will be completed and occupied by the year 2020.

6.8 Affordability Impacts

The impact of an Affordable Housing Levy set at 5% on the generic "price" of housing — that is, rents and house prices — by area is shown in Table 6.2.

Generally-speaking, the impact of imposing a levy would not be significant. This is mainly because the target number of dwellings is small relative to the size of the housing market and the projected increases in supply. In the cases where there might be some "excess demand" as a result of the levy — that is, the initial demand would outstrip the available supply — the consequential increase in the price of housing (required to establish an equilibrium between demand and supply) would itself stimulate some increase in the supply of *new* dwellings to offset the negative impact of the levy.

In Scenario C — under which affordable housing is either provided *in situ* by developers in areas of new residential development (and full-value monetary contributions are paid by the developers of commercial and industrial development) or a decision is made by not-for-profit providers to distribute the *new* affordable housing in areas where other new housing developments are anticipated — there might be small increases in the price of housing in both the Central area and in Green Square.

Table 6.2 Impact on the "Price" of Housing by Area, 2009 to 2020 — *Affordable Housing Levy set at 5%*

	Central	Green Square	Ultimo	Redfern	All Other Aggregated
Scenario A: Monetary Contribution; Full Value; Affordable Housing Clustered					
2009	0.7%	2.0%	0.4%	0.5%	0.2%
2012	0.0%	0.7%	0.2%	0.3%	-0.2%
2017	0.0%	0.4%	0.1%	0.3%	0.0%
2020	0.1%	0.5%	0.1%	0.2%	0.1%
Scenario B: Monetary Contribution; Cost Share Basis; Affordable Housing Clustered					
2009	-0.1%	0.4%	0.1%	0.0%	-0.1%
2012	-0.2%	0.6%	0.1%	0.1%	-0.2%
2017	-0.1%	0.3%	0.1%	0.1%	-0.1%
2020	-0.1%	0.1%	0.0%	0.0%	0.0%
Scenario C: Dedicated Space or Money; Full Value; Affordable Housing* In Situ *(new housing areas only)					
2009	1.1%	1.6%	0.3%	0.4%	0.2%
2012	0.8%	0.4%	0.0%	-0.1%	-0.2%
2017	0.5%	0.3%	0.0%	0.1%	-0.1%
2020	0.3%	0.4%	0.1%	0.2%	0.0%

Source: P/P/M Consultants forecasts

In Scenario A — under which the levy is paid in the form of a monetary contribution assessed at the true value of the space concerned and the affordable housing is assumed to be clustered into a limited number of areas — there would be very little impact on prices in the Central area but a small increase in the cost of housing for tenants and owners in Green Square. This is because, under this assumption, Green Square would be site of the largest block of *new* affordable housing. Ultimo and Redfern would experience much smaller, scarcely detectable, increases. In other areas the price of housing would remain unchanged.

In Scenario B —under which the monetary contribution is paid at the cost-share rate and the affordable housing is clustered — there would still be a detectable increase in the cost of housing in the Green Square area although it would be smaller than under Scenario A and a slight fall in the price in the Central area.

Only a few of the changes outlined in Table 6.2 could be said to exceed the margins of error intrinsic to this type of analysis.

Table 6.3 Impact on "Price" of Housing: Effect of Different Rates of AH Levy, 2009 to 2020

	Central		Green Square		Ultimo		Redfern		All Other Aggregated	
	Scenario A	Scenario C	Scenario A	Scenario C	Scenario A	Scenario C	Scenario A	Scenario C	Scenario A	Scenario C
DIFFERENCE BETWEEN AH Levy @ 4% and AH Levy @ 5%										
2009	0.0%	0.0%	-0.2%	-0.1%	0.0%	0.0%	-0.1%	-0.1%	-0.1%	-0.1%
2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2017	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%
2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DIFFERENCE BETWEEN AH Levy @ 3% and AH Levy @ 5%										
2009	-0.2%	-0.2%	-0.5%	-0.5%	-0.1%	-0.1%	-0.2%	-0.2%	-0.1%	-0.1%
2012	-0.1%	0.0%	-0.1%	0.0%	0.0%	0.0%	-0.1%	-0.1%	0.0%	0.0%
2017	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%	-0.1%	-0.1%	0.0%	0.0%
2020	-0.1%	0.0%	-0.1%	-0.1%	0.0%	0.0%	-0.1%	-0.1%	0.0%	0.0%
DIFFERENCE BETWEEN AH Levy @ 2% and AH Levy @ 5%										
2009	-0.4%	-0.3%	-0.9%	-0.8%	-0.2%	-0.2%	-0.3%	-0.3%	-0.2%	-0.2%
2012	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	-0.1%	-0.1%	0.0%	0.0%
2017	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	-0.2%	-0.1%	0.0%	0.0%
2020	-0.1%	-0.1%	-0.2%	-0.2%	0.0%	0.0%	-0.1%	-0.1%	-0.1%	-0.1%

Source: P/P/M Consultants forecasts

Changing the rate at which the levy was set would not lead to a very large improvement in affordability unless the rate was lowered to 2%, and then only in the Green Square area, as the figures in Table 6.3 indicate. The extent of the improvement would be similar whether the levy was paid as a monetary contribution and the affordable housing was clustered or was paid in kind and the housing was provided *in situ*.

There would be no detectable impact on the price of housing from lowering rate of the levy below 5% in the case where the levy was paid as a monetary contribution, assessed on a cost-share basis. This is because the effects derive more from the consequential changes in the location of households and demand than from the direct impact of the development of *new* market housing.

6.9 Impact on Housing Availability

The overall impact of an affordable housing levy, set at 5%, on the supply of market housing by area *relative to the level of demand* is shown in Table 6.4. The supply effect indicated here takes into account all consequential changes in the availability of market housing. It is equivalent to the extent to which the demand for space is forced to contract (*negative*) or can expand (*positive*) in the light of the new supply conditions.

In Scenario C — under which affordable housing is either provided *in situ* by developers in areas of new residential development (and full-value monetary contributions are paid by the developers of commercial and industrial development) or a decision is made by not-for-profit providers to distribute the *new* affordable housing in areas where other new housing developments are anticipated — there would be a small reduction in supply in the Central and Green Square areas.

In Scenario A — under which the levy is paid in the form of a monetary contribution assessed at the true value of the space concerned and the affordable housing is assumed to be clustered into a limited number of areas — there would be negligible impact in the Central area, because the reduction in the supply of *new* market housing would be offset by the availability of dwellings (open to renovation and improvement) released by those who move out of the area into the new affordable dwellings.

The impact would be slightly more significant in the Green Square, Ultimo and Redfern areas because these areas are assumed to house significant clusters of *new* affordable dwellings.

Table 6.4 Impact on the Overall Availability of Market Housing by Area, 2009 to 2020 — ***Affordable Housing Levy set at 5%***

	Central	Green Square	Ultimo	Redfern	All Other Aggregated
Scenario A: Monetary Contribution; Full Value; Affordable Housing Clustered					
2009	-0.5%	-1.4%	-0.3%	-0.4%	-0.1%
2012	0.1%	-0.5%	-0.1%	-0.2%	0.1%
2017	0.0%	-0.3%	-0.1%	-0.2%	0.0%
2020	-0.1%	-0.3%	-0.1%	-0.2%	0.0%
Scenario B: Monetary Contribution; Cost Share Basis; Affordable Housing Clustered					
2009	0.1%	-0.3%	-0.1%	0.0%	0.1%
2012	0.2%	-0.4%	-0.1%	-0.1%	0.1%
2017	0.1%	-0.2%	0.0%	0.0%	0.1%
2020	0.0%	-0.1%	0.0%	0.0%	0.0%
Scenario C: Dedicated Space or Money; Full Value; Affordable Housing **In Situ** ***(new housing areas only)***					
2009	-0.7%	-1.1%	-0.2%	-0.3%	-0.1%
2012	-0.5%	-0.3%	0.0%	0.1%	0.1%
2017	-0.3%	-0.2%	0.0%	-0.1%	0.1%
2020	-0.2%	-0.3%	0.0%	-0.1%	0.0%

Source: P/P/M Consultants forecasts

In Scenario B —under which the monetary contribution is paid at the cost-share rate and the affordable housing is clustered — there would be a very small positive improvement in the Central area and the negative impacts would be less in Green Square, Ultimo and Redfern than under Scenario A because the lower rate of contribution would lead developers to cut back the supply of *new* affordable housing by a lesser amount.

In the case of Scenario B —under which the monetary contribution is paid at the cost-share rate and the affordable housing is clustered — the difference that a lowering of rate of levy below 5% would have would not be significant.

In the case of Scenario A and Scenario C, the effects of lower rates of levy are shown in Table 6.5. They are very similar. In general the effect would lead either to a trivial change or to a very small improvement in the overall supply situation.

Table 6.5 Impact on the Overall Availability of Market Housing: Effect of Different Rates of AH Levy, 2009 to 2020

	Central		Green Square		Ultimo		Redfern		All Other Aggregated	
	Scenario A	Scenario C	Scenario A	Scenario C	Scenario A	Scenario C	Scenario A	Scenario C	Scenario A	Scenario C
DIFFERENCE BETWEEN AH Levy @ 4% and AH Levy @ 5%										
2009	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2017	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DIFFERENCE BETWEEN AH Levy @ 3% and AH Levy @ 5%										
2009	0.1%	0.1%	0.4%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
2017	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
2020	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
DIFFERENCE BETWEEN AH Levy @ 2% and AH Levy @ 5%										
2009	0.3%	0.2%	0.6%	0.6%	0.1%	0.1%	0.2%	0.2%	0.1%	0.1%
2012	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
2017	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
2020	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%

Source: P/P/M consultants forecasts

6.10 Demand and Supply Imbalance

The effect of imposing an affordable housing levy would be:

- ✓ to encourage some redistribution of households between housing market areas in the City of Sydney; and
- ✓ and to result in a small decrease in the overall number of households housed in the area.

The redistribution between areas would be induced by the relative price changes.

The decrease in the number of households would take two forms:

- ✓ a small increase in the number of people in some households; and
- ✓ an inability to find housing in the City of Sydney area which would lead households to locate in other parts of the inner city (or elsewhere).

Evidence from studies in the 1980s suggested that household formation is very sensitive to price changes among the young. (See Table 6.6.)

Table 6.6 Sensitivity of Household Formation to Income and Price Changes

Age	Income	Cost of housing
20-24	1.6	-0.6
24-29	0.9	-0.5
30-34	0.6	-0.3
35-39	0.4	-0.2
40-44	0.3	-0.1
45-49	0.2	0
50-54	0.1	0
55-59	0.1	0
60-64	0.1	0
65-69	0.1	-0.1
70-74	0.2	-0.1
75+	0.4	-0.3

Source: Indicative Planning Council Long Term Projections Report *1989*

In Scenario B —under which the monetary contribution is paid at the cost-share rate and the affordable housing is clustered — there would be negligible impact on the availability of housing (compared with the situation *without* an Affordable Housing Levy). This is because it would be possible to house all the existing households at the going "price" of housing in all areas (taken together).

In Scenario A — under which the levy is paid in the form of a monetary contribution assessed at the true value of the space concerned and the affordable housing is assumed to be clustered into a limited number of areas — and in Scenario C — under which affordable housing is either provided *in situ* by developers in areas of new residential development (and full-value monetary contributions are paid by the developers of commercial and industrial development) or a decision is made by not-for-profit providers to distribute the *new* affordable housing in areas where other new housing developments are anticipated — it would not be possible to house the same number of households as in the "*without*" case (see Table 6.7).

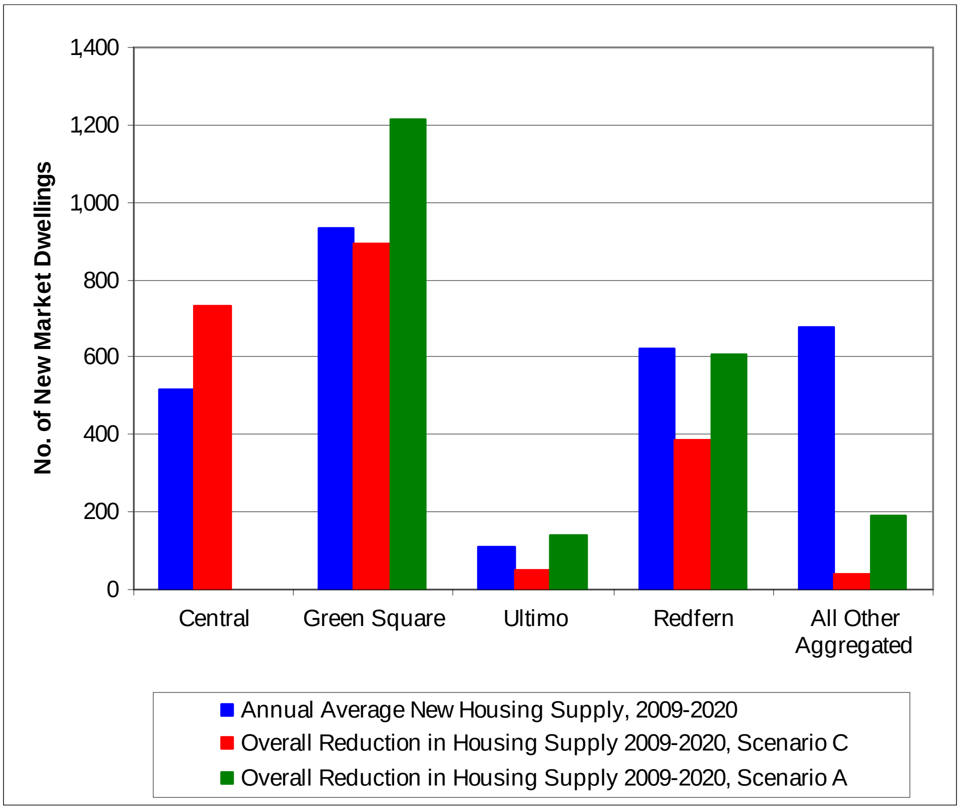
Table 6.7 Import (+) or Export (-) of Households ***(compared to the situation without a levy)*** **by area over the period 2009 to 2020, at different rates of levy.**

Levy rate	5%	4%	3%	2%
Scenario A				
Central	3	-180	-88	2
Green Square	-1,214	-1,136	-973	-813
Ultimo	-142	-132	-112	-91
Redfern	-605	-488	-373	-261
All Other Aggregated	-192	-60	69	196
City of Sydney LGA	-2,150	-1,996	-1,477	-968
Scenario C				
Central	-558	-743	-662	-580
Green Square	-892	-827	-682	-537
Ultimo	-51	-43	-25	-7
Redfern	-389	-287	-185	-83
All Other Aggregated	-42	72	187	301
City of Sydney LGA	-1,931	-1,827	-1,366	-905

Source: P/P/M Consultants forecasts

Across the City of Sydney as a whole, over the period 2009 to 2020, the imposition of a levy at the 5% rate would lead to a reduction in the *total* available supply of market housing equivalent to perhaps two thirds to three quarters of the number of *new* dwellings that are anticipated *annually* in the absence of a levy. In the more significantly affected areas, such as the Central area and the Green Square area, the loss might be equivalent to about one-and-a-half year's full *annual* production rate. This is illustrated in Figure 6.4.

Figure 6.4 Reduction in Total Market Housing Supply, 2009 to 2020, due to 5% levy, compared to Annual Average Production Rate



Source: P/P/M Consultants forecasts

In effect the expected increase in the resident population would be postponed for about one year. Note however that this would be the "average" effect. The actual effect would be more serious in "slump" years and less serious in "boom" years — so far as the rate of new residential development is concerned.

6.11 Impact on Residential Development

Taking into account the fact that some of the new housing supply *with an affordable housing levy* would now take the form of affordable housing units, the impact on the supply of *new* market housing (with rates of levy set at 5% and 2%) is shown in Table 6.8.

Table 6.8 Change in the Number of New Market Housing Units Supplied over the period 2009 to 2020 — *with* levy compared to *without**

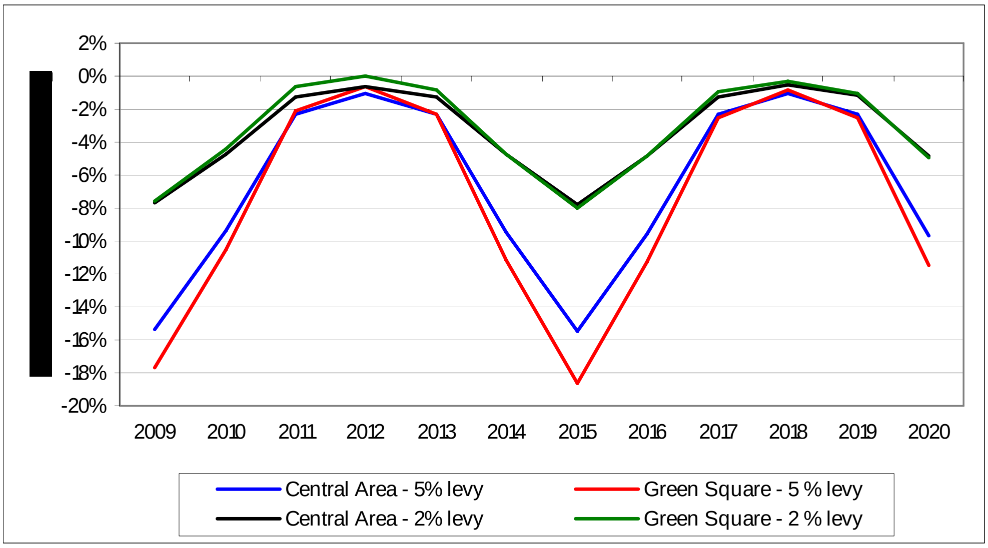
	Scenario C		Scenario B		Scenario A	
Rate of levy	5%	2%	5%	2%	5%	2%
Central	-5.0%	-2.4%	-0.2%	-0.2%	-5.5%	-2.8%
Green Square	-5.5%	-2.4%	0.2%	0.3%	-6.1%	-2.5%
Ultimo	-6.2%	-2.8%	-0.1%	0.0%	-7.3%	-3.1%
Redfern	-6.5%	-2.7%	-0.1%	0.0%	-7.1%	-2.7%
All Other Aggregated	-6.7%	-2.7%	-0.2%	-0.1%	-7.4%	-2.9%
City of Sydney LGA	-6.0%	-2.6%	-0.1%	0.0%	-6.6%	-2.7%

Note: * After allowance for the fact that a part of the new housing supply now takes the form of affordable dwellings.
Source: P/P/M Consultants estimates

The scale of the reduction under Scenario A — under which the levy is paid in the form of a monetary contribution assessed at the true value of the space concerned and the affordable housing is assumed to be clustered into a limited number of areas — and under Scenario C — under which affordable housing is either provided *in situ* by developers in areas of new residential development (and full-value monetary contributions are paid by the developers of commercial and industrial development) or a decision is made by not-for-profit providers to distribute the *new* affordable housing in areas where other new housing developments are anticipated — is very similar. In Scenario B, however —under which the monetary contribution is paid at the cost-share rate and the affordable housing is clustered — there would be virtually no reduction in the supply of new housing.

The reduction in the first two cases is slightly larger than the rate of levy over the period as a whole because the period incorporates three "recessionary" phases (when the declines would be larger) and only two "buoyant" periods (when the declines would be smaller). This is illustrated in Figure 6.5.

Figure 6.5 Annual Variation in the Rate of Reduction in *New* Housing Supply due to the Impact of a Levy



6.12 Impact on a Large Urban Redevelopment Area

The City of Sydney has requested comment on the possible impact of a levy on a large urban redevelopment area such as the Ashmore development in Erskineville.

As noted in relation to the impact on commercial and industrial development, it is important to recognise that the response to changes in development conditions - such as the imposition of a levy - is bound to be "statistical" in nature: that is to say, while it may be possible to make a reasonable guess about the level of response across a broad area (such as Green Square or the Central Area), it would be wrong to assume that this response will be exactly the same across all developers and all sites.

The figures quoted above for All Other Areas Aggregated necessarily average out positive and negative impacts in different areas. These figures should not therefore be applied uncritically.

The experience of a large development such as that proposed for Erskineville is more likely to conform (when taken as a whole) to the "average" experience of the area in which it is located than a small site. In this context the experience of the Ashmore site would probably be more like that outlined above for the Ultimo or Redfern areas (taken as a whole) than the other parts of the local government area which have been aggregated. If this is correct, it would entail a small decrease in the rate of supply of *new* housing and a small increase in the "price" of housing in the area.

However, as noted above, the practical effect would most likely be to postpone a part of the development for a period — shorter or longer, depending on the time of commencement in relation to the swings in house production activity and housing demand more generally — although some land-owners or developers might choose to alter their plans in the light of the new impost.

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

In general the impact of the proposed levy on the housing market, even if set at the 5% rate, seems likely to be quite small. However, it will be significantly larger when the market for new housing and other forms of development is slack or in recession, though by the same token it will be of relatively little significance when the market is buoyant.

The impact of a 5% rate is nonetheless likely to be significant both in the Central Area and in the Green Square area in relation to commercial and industrial development in the years when the demand for space and the incentive to undertake new development is low. At such times, however, the impost that a levy would entail would not be the most important influence on development decisions. The levy would therefore be adding to, but not essentially, causing the downturn in development activity. In the years when the development climate is buoyant, the impact of a levy, though detectable, would not be so significant.

The impact will be larger if the rate is set at 5%; at the 2% level it would be of much less significance under all circumstances.

The impact will be much smaller if the levy is paid in the form of a monetary contribution and that contribution is set at, or close to, the proposed figure of \$140 per m^2 (at 2008 prices) than if developers meet their legal obligations by dedicating space *in situ* or if monetary contributions are set in such a way as to reflect more closely the value of the space *in lieu* of which they are paid.

The imposition of a levy would inevitably entail some adjustments in the housing market. These would depend on whether or not the *new* affordable housing was clustered into a few areas or distributed widely throughout the City of Sydney.

If the *new* affordable dwellings are clustered into a few areas and they include areas which are expected to experience a rapid rate of housing development such as the Green Square area, then the impact on the price and supply of market housing will be greater in those areas than if the *new* affordable dwellings are distributed more widely.

Across the City of Sydney as a whole, over the period 2009 to 2020, the imposition of a levy at the 5% rate would lead to a reduction in the *total* available supply of market housing equivalent to perhaps two thirds to three quarters of the number of *new* dwellings that are anticipated *annually* in the absence of a levy. In the most affected areas, such as the Central area and the Green Square area, the loss might be equivalent to about one-and-a-half year's full *annual* production rate.

In practice this means that additions to the supply of housing in the City of Sydney might be postponed by about one year compared with the situation *without* an affordable housing levy. This impact would be larger in recessionary years and less marked in buoyant years.

The rate of residential development in the market sector would not be affected if a monetary contribution were to be paid at the cost-share rate and the affordable housing was clustered. In other circumstances, taking into account the fact that a part of the new housing supply would now take the form of affordable dwellings, the supply of *new* market housing would fall by about 6-7% across the period 2009 to 2020 as a whole. This would be slightly larger than the rate of levy over the period as a whole because the period incorporates three "recessionary" phases (when the declines would be larger) and only two "buoyant" periods (when the declines would be smaller).

The conclusions noted above are based on the assumption that the *new* affordable housing units are allocated to households which, in the absence of a levy, would all find their housing *within* the City of Sydney. If the *new* affordable dwellings were allocated to households from outside the City of Sydney and the volume of land zoned for residential development remained unchanged, the negative impacts on the price and availability of housing would be larger. This is because, under the assumption of a fixed volume of land zoned for new housing, some would be used to house people from *outside* the City (in the *new* affordable dwellings), while at the same time there would be no release of existing stock. The existing residents and those predicted to be in the market (in the absence of a levy) for the *new* market dwellings would therefore have to "squeeze up" into a reduced supply, comprising the pre-existing stock and the new market dwellings. As a result the equilibrium price would have to rise.

7.2 Recommendations

It is recommended that the City of Sydney should refine its estimates of the amount of development likely to occur in future so as to determine more clearly the scale of the levy that would be required to finance the construction of 2,000 new affordable dwellings. In this context it seems unwise to base the policy on estimates that relate to the period up to 2030, since there is far too much uncertainty about the more distant future. Instead the policy should be based on achieving a smaller number of dwellings over a considerably shorter period, with scope for the policy to be reviewed and extended thereafter.

It is recommended that, to the extent that the law permits, the City of Sydney should establish a regime under which the contribution to affordable housing is paid in a monetary form rather than in the form of dedicated space.

It is recommended that the monetary contribution payable by developers should be designed to reflect differences in the cost or value of developments and not be set at a fixed amount per unit area of development for all categories of development and in all locations.

It is also recommended that the monetary amount be set in such a way as to accommodate possible changes over time in the real cost of providing and managing affordable dwellings, taking into account possible increases in the cost of land and construction costs as well as changes to households needs and variations due to the selection of different locations within the City of Sydney for the new dwellings.

It is further recommended that the City of Sydney should refine its policy to clarify whether the *new* affordable housing units will be allocated by preference to those already resident in the City of Sydney or might be allocated to those who otherwise would be living outside the area.

APPENDIX A — GEOGRAPHICAL AREAS

The geographical areas used in the study are defined as follows:

Employment Zone	Geographical Area
	Central Area
3	Millers/Dawes Pt
10	East Circular Quay
4	Observatory Park
5	Rocks (S)
6	KENS/King St Wharf
7	Wynyard
8	Circular Quay
9	Financial Core
11	Macquarie/Hospital
14	Martin Place
17	Botanic/Opera House
18	Domain/Parl. House
13	QVB
15	Retail Core
16	Park/Elizabeth St
831	Town Hall
832	West Core/Cockle Wharf
838	Hyde Park
20	Liverpool St East
22	City South/Haymarket
835	West Wentworth/Liverpool
21	Liverpool St West
25	Market City/Paddys
	Ultimo
28	Pyrmont/Convention Cntr
29	Pyrmont Point
23	Ultimo/ABC
24	Ultimo/UTS
27	Ultimo/Wattle St
	Redfern
26	Chippendale
833	Central Railway
86	Eveleigh (ATP)
84	Redfern/Chalmers st
85	Redfern station
	Green Square
79	Zetland
80	Green Square
81	Waterloo
75	Alexandria North
77	Alexandria South
78	Rosebery

APPENDIX B — POPULATION AND EMPLOYMENT FORECASTS

Table B.1 Population and Employment Forecasts by Housing Market Area, 2006–2021

	Population				Employment			
	2006	2011	2016	2021	2006	2011	2016	2021
HARBOUR	5,804	6,489	8,440	9,329	128,851	136,124	144,592	154,233
ULTIMO	17,465	18,665	19,426	19,801	27,411	32,293	32,943	33,178
KINGS CROSS	19,079	19,476	19,879	20,077	12,056	12,417	12,412	12,524
HAYMARKET	15,224	18,634	21,309	22,626	97,136	109,240	110,966	113,685
GLEBE	15,836	17,730	18,379	18,698	6,279	6,661	6,659	6,706
REDFERN	14,306	15,448	22,663	25,280	11,943	13,216	27,043	28,892
NEWTOWN	20,848	21,234	24,680	26,377	16,644	17,243	17,251	17,376
GREEN SQUARE	16,388	24,805	32,450	36,215	30,747	34,557	39,425	40,483
SURRY HILLS	20,470	21,198	23,168	24,138	20,990	22,179	22,165	22,449
OXFORD	16,117	16,903	17,429	17,688	16,986	17,502	17,496	17,628
TOTAL	161,537	180,583	207,822	220,229	369,043	401,434	430,952	447,154

Source: figures from The City of Sydney study for Sustainable Sydney 2030 *supplied by the City of Sydney.*

APPENDIX C — STATISTICAL ANALYSIS

The results of the analysis of Office Supply in Sydney CBD are shown in the following table. While not very robust, due to the small sample size, they are indicative of significant influences on the supply of commercial space, of which the "price" of space (rent) is only one.

Table C.1 Analysis of New Office Supply

	Components of Analysis	
Form of relationship	Log Log	
R^2 - *% of variance explained*	43% *(in logged form)*	
Dependent Variable	Sydney CBD Office Supply	
Independent Variables	*Coefficient*	*T statistic*
Constant	7.2	0.9
Rent (in current year)	0.7	0.7
Interest rate (2 years before)	0.8	1.0
Vacancy rate (2 years before)	-0.6	-1.3

External Data Sources: Rents: *Colliers Jardine series*; Interest Rates: *RBA 5-year Australian Government Bond Yields;* Office Supply: *Property Council of Australia half-yearly series for Sydney CBD office market.*