# Forecasting the Distribution of Stand-Alone Office Employment across Sydney to 2035

PREPARED FOR NSW DEPARTMENT OF PLANNING AND ENVIRONMENT



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BUSINESS RESEARCH AND FORECASTING

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*Job No: P6281*

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# Contents

## APPENDIX

## EXECUTIVE SUMMARY

The Department of Planning and Environment's Metropolitan Strategy *'A Plan For Growing Sydney'* sets the framework for Sydney's growth in population and employment to 2031. As part of a process of review, BIS Shrapnel was asked by the Department to provide forecasts of the distribution of stand-alone office employment within Sydney to 2035. The analysis incorporates 35 nominated centres, 27 of which are identified as Strategic Centres and 3 as Transport Gateways within the Metropolitan Strategy.

***Total employment*** across the Sydney metropolitan area is forecast to grow from 2.1 million at 2010 to an estimated 2.9 million by 2035, with the strongest growth occurring in the health, arts & recreational, accommodation & food services, property & business services and finance & insurance sectors. The ***stand-alone office workforce*** (SAOWF) across metropolitan Sydney accounts for around 27% of total employment as well as 60% of office employment and is forecast to grow from 565,000 persons at 2010 to an estimated 811,000 by 2035.

**Centres across metropolitan Sydney**

In analysing the distribution of the SAOWF growth across the centres, we were asked to focus on the largest centre (by both office stock and workforce), the Sydney CBD.

**The Sydney CBD in focus**

The **Sydney CBD** is at the heart of the metropolitan area and captures the largest share of office stock and SAOWF amongst the centres. At 2010, we estimate the CBD SAOWF was 224,000 with an office stock of 4.85 million square metres. Since then, these have grown to 234,000 and 4.96 million square metres respectively at December 2014.

The CBD is the preferred office location for many businesses, which accounts for almost all of the city's premium grade office space. It features some of Australia's most significant industry clusters, particularly in the areas of finance, business services and government administration. It is also the location of a large proportion of regional headquarters of multinational companies that operate in Australia, as well as national headquarters.

Many like to stylise Sydney as an international city competing for business with the likes of London and New York. However, given the rapid growth across Asia, Sydney competes much more with Singapore and Hong Kong and, to a lesser extent, with many other cities in Asia. We think that Sydney has a role to play within Asia but is never going to be a dominant player. Sydney has certain advantages, but for many western companies seeking to set up a base within Asia, Singapore and Hong Kong are far more centrally located and have been the preferred entry point.

As such, the main drivers of demand for office space in Sydney are domestic—both macroeconomic factors of national economic and employment growth and local factors within NSW and the Sydney metropolitan area. Sydney is a key service city for Australia—particularly in finance and business services—and that is where most of the CBD's employees work. City of Sydney figures for 2012 showed that some 68% of the CBD's total workforce is employed within these two sectors, with a further 8% in government administration.

However, the Sydney CBD cannot be viewed in isolation from the broader metropolitan market, with which it is intertwined and dependent. Clustering of businesses also occurs outside the CBD in key industries upon which CBD occupants rely. Tenants also flow in and out of the CBD depending on rental relativities with non-CBD locations—businesses that can afford to pay for the privilege of being located in the CBD will stay there on a permanent basis, but others are forced out during periods of surging rents, with a reverse flow occurring when rents are cheap.

**Prospects for CBD stand alone office workforce growth and capacity**

**Stand alone office workforce**

Our forecasts for total employment growth across NSW, the Sydney metropolitan area and the CBD stand-alone office workforce over the next 10 years are sourced from BIS Shrapnel's *Sydney Commercial Property and Sydney Suburban Centres and Office Parks 2015 to 2025* publications. The key conclusions for the prospects for employment growth from these publications are summarised as follows:

The key to office employment growth across the Sydney metropolitan area and the CBD will be the strength of the Australian and New South Wales economies. The national economy is set to record below trend growth over the short term, as mining investment declines and non-mining investment takes time to come through. A lower exchange rate is the conduit that will help the structural shift away from mining, but low capacity utilisation will delay non-mining investment and a shift back towards a balanced economy. Meanwhile, falling mining investment will be partially offset by the upswing in residential building, a modest pick-up in household consumption expenditure and continued growth in resources exports.

In NSW, the economic outlook is brighter. Key drivers are already in place that will underpin strong economic growth over the next two to three years. Sustained residential and infrastructure (road and rail) investment as well as a lower exchange rate, will boost demand and, later, the competitiveness of the services sector. That in turn will underpin employment growth. The sustained lower dollar will also reduce the attractiveness of offshoring services and encourage local investment. Over the same period, we expect the metropolitan stand alone office workforce (SAOWF) to increase at a stronger annual average rate than total employment, underpinned by growth in the key office employing sectors.

There could be a pause in economic growth in 2018 and into 2019 as the Reserve Bank lifts interest rates back towards a more neutral level dampening office take-up across Sydney. This is expected to be followed by a strengthening demand into early next decade, with slower growth around the middle of the decade.

Between December 2014 and December 2025, metropolitan (total) employment growth is forecast to increase at an average annual rate of 1.6% per annum. Over the same period, we expect the metropolitan SAOWF to increase at a stronger pace, of 1.9% per annum, reflecting stronger growth prospects for key office employing industries. The strongest employment growth will come from the health, accommodation & food services, arts & recreational services, property & business services and finance & insurance sectors. All of these sectors, except health, will benefit from a lower exchange rate. Health employment will be underpinned by the need to service an ageing population.

For the CBD, we forecast the SAOWF to increase at an average 1.5% per annum over the 11 years to December 2025, underpinned by solid growth in property & business services, finance & insurance and to a lesser extent public administration. The slower pace of growth is due to emerging supply constraints and rising occupancy costs as the market moves through a strong upswing. As a result, we expect CBD's share of the metropolitan SAOWF to slip from almost 40% to closer to 38% over this forecast horizon.

Over the 10 years to 2035, per capita trends in New South Wales are expected to be similar to those in the rest of the national economy. However, compared to the other States, New South Wales has traditionally had more stable growth in State Final Demand. This reflects the fact that the New South Wales economy has not had the big swings in mining investment that the other states have had. State Final Demand (SFD) is defined as consumption investment expenditure by the public and private sectors. SFD is different to Gross State Product as it does not include net international/interstate trade or change in inventories. We forecast this relative stability of the New South Wales economy to persist over the forecast horizon. However, the longer term declining trend in population growth is expected to feed through to slowing economic and employment growth (including office employment).

The Sydney CBD will remain the preferred office location across the Sydney metropolitan area over the longer term, with its ability to accommodate increasing office employment only likely to be limited by capacity constraints in the last year or two of the forecast horizon. Over the 10 years to 2035, our forecast is for the SAOWF to increase by an average annual 1.4%, to reach 318,000 people, marking a 42% increase from to 2010.

**Sydney CBD capacity**

A critical issue in the CBD's development as an office centre and in its future prospects is the limited availability of sites for new office buildings and difficulty in consolidating sites—hence the high rents required to make new development financially feasible. Theoretical capacity (assuming full development of potential floorspace based on existing planning controls) is based on the unrealistic assumption that there are no constraints to development, either physical or financial. In reality, theoretical capacity will never be reached—'realistic' capacity is substantially lower. Site specific constraints such as heritage, covenants and overshadowing reduce development potential. More importantly, realistic capacity is dependent on rents. Rents are the critical ingredient in financial feasibilities. The higher the rent, the more potential floorspace can be built. It is clear to us that 'realistic capacity' should form the basis of potential future growth in the CBD and is an essential area of further research for long term planning.

Site constraints have been a key factor behind the CBD's declining share of metropolitan office stock—down from 56% to 41% over the last 30 years. Within the CBD, it is reflected in expansion beyond the core, particularly to the mid-town and western corridor precincts in which the bulk of new development has taken place since 2000.

However, over the coming 10 years the decline in the CBD's share of metropolitan stock is forecast to slow, thanks largely to development at Barangaroo, which has used up the last major vacant city site. At present, top end market rents within Central Sydney are at or close to the levels required to underwrite new projects—at least as far as vacant sites are concerned. Developing major amalgamations requires higher rents and tenants' willingness to pay the necessary premium in order to underwrite the viability of construction. We expect to see this development happen over the next decade. Based on our forecasts, already identified sites will underwrite development of around 680,000 square metres in net additions to office stock between June 2015 and December 2025.

Beyond the next 10 years, the development opportunities are less clear. New sites will need to be consolidated. This will take time. And it will occur in phases. Even then, projects will only proceed once they become financially feasible. That means higher rents and property values.

We estimate that the CBD will reach theoretical capacity (assuming full development of potential floorspace based on existing planning controls) by around 2034. This assumes no constraints on development. In reality, theoretical capacity will never be reached as site specific issues mean not all buildings can be developed up to their maximum permissible floorspace. That means actual capacity is substantially lower and will be reached much sooner. Similarly, any change in FSRs or height restrictions would change financial feasibilities and release space. Again, that would need to be quantified.

**Prospects for other centres**

Along with the CBD, we have compared our projections of SAOWF with estimated office theoretical floorspace capacity on a centre by centre basis under current planning regulations to identify which centres will reach capacity and when, and have drawn the following conclusions:

- Rhodes and Chatswood are already at or close to capacity.
- North Sydney is expected to reach capacity by around 2034 if there were no constraints on development. But this is an unrealistic assumption and actual capacity is likely to be reached much sooner.
- Developers will go to the next most attractive locations for tenants (once financial feasibilities work). Parramatta, St Leonards, Green Square and Pyrmont/Ultimo should still have a reasonable degree of expansion potential, whilst Macquarie Park, Norwest and Olympic Park are amongst the major existing centres that have substantial capacity to grow. Whilst we have assumed no substantial change in planning policies such as zoning and floor space ratios, it is likely that some centres will see rezoning of selective sites or areas to facilitate higher density development over the medium to longer term.
- Looking further ahead, by 2035 we assess that—other things being equal—opportunities for office development will start to be limited in Parramatta, St Leonards and Pyrmont/Ultimo. However, given the important regional role of Parramatta within Western Sydney, Parramatta Council is currently reviewing planning controls to allow for substantially more office development.
- At this stage, there will be locations, including Macquarie Park, South Sydney and Olympic Park that should still have plenty of expansion potential—even given competition from residential use.
- Information on capacity in smaller centres is hard to come by, but we estimate that many or most of the smaller office centres will have spare capacity for decades to come, until such time as overflow demand from elsewhere in the metropolitan area puts these centres on a higher growth trajectory.

# 1. INTRODUCTION

BIS Shrapnel has been asked by NSW Department of Planning and Environment to provide an update of their 2014 report, *Forecasting the Distribution of Stand-Alone Office Employment across Sydney to 2035.* The objective of the work sought by The Department is to inform the preparation of subregional plans identified in the metropolitan Strategy: *A Plan for Growing Sydney*.

This study provides indicative forecasts of the distribution of stand alone office workforce (i.e. people who work in dedicated office buildings) across a network of office market centres. A total of 35 centres are included. Of these centres, 27 are nominated as Strategic Centres within *A Plan for Growing Sydney*, while a further 3 are defined as Transport Gateways. The centres are sorted into six sub-regions as follows:

- Central: Sydney CBD, Bondi Junction, Burwood, Port Botany/Botany, Randwick, Sydney Airport/Mascot, Green Square, Camperdown/Redfern/Eveleigh, Pyrmont/Ultimo
- North: North Sydney, Brookvale/Dee Why, Chatswood, Hornsby, Macquarie Park, Rhodes, St Leonards, Gordon/Pymble, Frenchs Forest
- West Central: Parramatta, Bankstown, Blacktown, Castle Hill, Norwest, Olympic Park, Westmead, Rouse Hill, Marsden Park
- South: Hurstville, Kogarah, Sutherland
- West: Penrith
- South West: Liverpool, Campbelltown, Leppington, Badgerys Creek

The main tasks are:

- To establish the stand-alone office workforce (SAOWF) in each of the centres as at 2010; and
- To provide forecasts of the stand-alone office workforce by centre in five yearly intervals to 2035.

The report draws high level conclusions regarding the strength, timing and distribution of employment across Sydney, together with the key factors driving or underpinning growth forecasts by region. High level conclusions are highlighted regarding future opportunities and constraints to development of existing and proposed centres.

# 2. EMPLOYMENT OUTLOOK FOR NSW/SYDNEY

## 2.1 NSW growth outlook

After last decades weak growth, the recovery in the New South Wales economy is well underway. Last decade's weakness was largely attributable to the collapse in residential building, with the resultant deficiency of stock underwriting recent strength. Currently displaying the strongest growth of all states, we expect NSW growth to improve further.

Indeed, New South Wales will be a key driver of Australia's domestic demand over the next three to five years.

The critical drivers of the State's economic recovery are:

- Its relatively minor exposure to mining.
- The sheer magnitude of the deficiency of residential stock—a result of last decade's under-building—should sustain the strength of residential building (though there may be some temporary setback as interest rates rise), through to the end of this decade.
- The NSW government is well advanced on asset sales and the next round of infrastructure projects.
- NSW's trade-exposed economy will benefit from the lower dollar, which we think has further to fall.
- As non-mining business investment builds momentum, NSW will be further boosted by growth in finance and business services.

As noted above, much of the state's recent economic growth and projected strength is attributable to the upswing in private residential building. Private investment will also be supported by solid growth in machinery and equipment, software and R&D, private non-dwelling building and private consumption expenditure (aided by a stronger labour market and low interest rates).

Joining private investment will be an increase in public investment and engineering construction as a number of major infrastructure projects ramp up. These major projects include the North-west rail link, M1 to M2 missing link, WestConnex Motorway and the Sydney light rail.

Meanwhile, the weaker $A is already starting to boost export growth and alleviate pressure on trade-exposed industries such as agriculture, manufacturing, education, business services, finance and tourism. Together with recovering infrastructure investment, this should underpin a sustained recovery. On the down side, private engineering construction will detract from growth for the next few years despite growth in private roads spending. But that will not be enough to detract significantly from the state's strengths.

Over the 10 years to 2035, per capita trends in New South Wales are expected to be similar to those in the rest of the national economy. However, compared to the other States, New South Wales has traditionally had more stable growth in State Final Demand. This reflects the fact that the New South Wales economy has not had the big swings in mining investment that the other states have had. State Final Demand (SFD) is defined as consumption investment expenditure by the public and private sectors. SFD is different to Gross State Product as it does not include net international/interstate trade or change in inventories. We forecast this relative stability of the New South Wales economy to persist over the forecast horizon. However, the longer term declining trend in population growth is expected to feed through to slowing economic and employment growth, as shown in Table 2.1.

**Table 2.1: NSW employment and GSP projections**

| | NSW total employment | NSW Gross State Product |
|---|---|---|
| *YE June* | Average annual growth rates (%) | |
| 2010-2020 | 1.6 | 2.9 |
| 2020-2030 | 1.1 | 2.5 |
| 2030-2035 | 1.0 | 2.3 |

Source: BIS Shrapnel

## 2.2 Forecasts of office employment across Sydney

Our forecasts for total employment growth across NSW, the Sydney metropolitan area and the stand-alone office workforce over the next 10 years are sourced from BIS Shrapnel's *Sydney Commercial Property 2015 to 2025* and *Sydney Suburban Centres and Office Parks 2015 to 2025* publications. The key conclusions for the prospects for employment growth from these publications are summarised as follows:

- The key to employment growth across the Sydney metropolitan area is the strength of the Australian and New South Wales economies.
- We expect Australia will be stuck at below trend growth for some time yet, until there is a more significant shift away from mining to non-mining investment-driven growth, with the transition instrument being a sustained fall in the $A boosting competitiveness and the absorption of excess capacity across most sectors (reflected in rising capacity utilisation rates).
- The NSW economic recovery is already underway, underpinned by rising residential building (as discussed above) with major infrastructure projects either underway or about to ramp up. We expect phases of both stronger and weaker growth, but overall, the NSW economy will perform much better over the next decade than it did over the last.
- Between 2014 and 2025, Sydney metropolitan employment growth is forecast to increase at an average annual rate of 1.6%.
- The strongest employment growth across the Sydney metropolitan area is expected to come from the service sectors, particularly health, arts & recreation, accommodation & food services, property & business services and finance & insurance, with all these sectors expected to outpace total average annual employment growth. Finance & insurance and property & business services employment growth will be boosted by the lower $A reducing the attractiveness of offshoring of services to other countries.

  Three out of five of these growth sectors are key users of office space. As a result, we expect the metropolitan *SAOWF* to outpace *total employment* growth, with their respective average annual growth rates at 1.9% versus 1.6%. By way of comparison, average annual SAOWF over the 2014 to 2025 period is also expected to just outpace the 1.8% it managed over the last 10 years.

Beyond 2025, our forecasts of employment growth across the Sydney metropolitan area are derived by applying the NSW employment growth rates by industry sector. Appendix A explains the steps we take to move from total employment to the metropolitan SAOWF by industry sector. Table 2.2 compares the total employment forecasts for the Sydney metropolitan area and the SAOWF from 2010 to 2035. In each 5 year period, from 2015 to 2035, the SAOWF is projected to increase at a faster rate than the total workforce. This trend reflects our expectation that the long run shift towards greater office services employment that we have observed generally since the 1970s will continue.

By 2035, metropolitan SAOWF is expected to increase by 44% from 2010 levels, to an estimated 811,000 persons. This reflects an average annual growth rate of 1.5% per annum compared to 1.3% growth in metropolitan total employment.

**Table 2.2: Metropolitan employment projection comparisons**

| *Year* | Metropolitan total employment ('000s) | Metropolitan stand-alone office employment ('000s) |
|---|---|---|
| 2010 | 2,103.5 | 564.6 |
| 2015 | 2,245.7 | 602.6 |
| 2020 | 2,474.0 | 673.1 |
| 2025 | 2,625.7 | 721.4 |
| 2030 | 2,754.8 | 763.9 |
| 2035 | 2,903.5 | 811.1 |
| Average annual growth rates (%) | | |
| 2010-2015 | 1.3 | 1.3 |
| 2015-2020 | 2.0 | 2.2 |
| 2020-2025 | 1.2 | 1.4 |
| 2025-2030 | 1.0 | 1.1 |
| 2030-2035 | 1.1 | 1.2 |

Source: BIS Shrapnel

# 3. EMERGING TRENDS IMPACTING OFFICE EMPLOYMENT GROWTH ACROSS SYDNEY

Our focus is on emerging macro trends factored into our forecasts of office employment across Sydney.

**The falling Australian dollar driving structural change**

The Australian economy is on the threshold of major structural change as the gearing up to service the mining sector now unwinds. The New South Wales economy paid the price for the mining boom, with the high Australian dollar ($A) suppressing the competitiveness of its trade exposed services sectors. Recent falls in commodity prices and the downturn in mining investment have helped the $A fall. Currently sitting around $US 0.74, we think that the $A needs to be between $US 0.58–0.70 for our export and import-competing industries to be competitive on average—a level we forecast it will achieve over the next three to four years.

New South Wales will benefit from the depreciating exchange rate, which will boost the competitiveness of its key service sectors including tourism, business services, finance & insurance, agriculture, arts & recreational services, accommodation and manufacturing. The lower dollar will also reduce the propensity to offshore business functions.

Structural change will take time to come through, delayed as businesses first use up excess capacity before rising demand for services triggers increasing investment and employment. Key office using sectors are poised to benefit from the increase in business investment, particularly finance & insurance and business services. Hence, we think these sectors will see above average office employment growth over at least the next three to five years.

**The recovery of business services employment**

Over the last 12 months in Sydney, ABS employment data has shown a strong uplift in business services employment, the largest office occupying sector across the metropolitan area. Underpinning this uplift has been an increase in architectural, engineering & technical services, professional, scientific & technical services, as well as a steady increase in computer system design. In particular, some of the largest leasing deals and enquiry reported by agents in Sydney have involved IT companies, which are classified under these business service categories. We think these trends are likely to continue as businesses start investing again and look to upgrade systems and software.

**The ageing workforce**

Over the next 10 to 20 years, Australia's population growth is expected to slow as the natural rate of population increase eases back and is not offset by healthy immigration levels. The ageing of the Australian population is expected to lead to lower population growth, falling participation rates and weaker employment growth. This is primarily due to Australia's ageing population structure. As the first of the baby boomers begin to move into their 80s. In addition, the ongoing cultural change toward having fewer children is expected to continue to slow the birth rate.

Further, an ageing population will lead to a long term fall in the participation rate and labour supply as the baby boomers start to retire. Table 2.1 and 2.2 factor in our expectation of lower total and SAOWF employment growth after 2020 for New South Wales and the Sydney metropolitan area.

**Technological advances changing workplace practices and demand for office space**

Technological advances facilitating more flexible workplace practices is not a new trend and is likely to continue to impact on the demand for office space across Sydney. Recent examples include Activity Based Working and Agile Working, and we have seen a rise in the number of remote working hubs across a number of suburbs. No doubt there will be other workplace practices adopted in the future. The long term adoption of these practices sees businesses having fewer desks/workspaces than employees. We are not sure how much space per employee these workplace practices save and the space savings are often over stated once additional meeting rooms, break-out spaces etc. are included.

The transmission mechanism within our forecasts is a reduction in the average workspace ratios per person. We have allowed for a gradual reduction in average workspace ratios over the forecast horizon across Sydney's major centres to reflect changes in workplace practices allowing for the more efficient use of space. However, not all businesses are suited to Activity Based or Agile Working and there are some that question the merit of such practices. This may act to slow the fall in average workspace ratios. Even so, the drive for more efficient workplaces is likely to become more evident in the comparatively expensive CBD and we expect this will drive a steady reduction in the average workspace ratio over the longer term.

# 4. OVERVIEW OF LIMITATIONS OF FORECASTING

Forecasting over any time horizon (and particularly longer term forecasting) is limited by various factors including:

- The quality of the data relied upon. Key inputs into our historical series are provided by the Australian Bureau of Statistics and the Property Council of Australia, whom in turn collects data via survey samples and agency committees—processes which are open to manipulation.
- Unforeseen events, be it catastrophic events, financial crises, wars or pandemics have the potential to dramatically alter the assumptions upon which forecasts are based.
- Our forecasts assume that market behaviour/interactions/relationships witnessed in the past will hold into the future but this may not necessarily be so.
- Changes in the way we work may not be properly captured in the data e.g. full time/part time employment or place of actual work measured by the ABS data, which can impact upon employment and demand for office space. Furthermore, long term changes to workplace practices could turn out to be greater or less than allowed for.
- Future turning points and magnitudes of demand cycles are difficult to forecast
- Planning changes by governments at either the state or local level have the potential to increase or decrease the future capacity for office development across the centres and hence their ability to accommodate forecast stand alone office workforce growth. Other government interventions, such as tax changes or business regulations have the potential to influence both the prospects for employment and development and can be difficult to anticipate.

# 5. EMPLOYMENT PROJECTIONS BY CENTRE—OPPORTUNITIES AND CONSTRAINTS TO DEVELOPMENT

Within this chapter we review the likely future allocation of SAOWF across a range of centres within Sydney, taking into account opportunities and constraints. Appendix A.2 considers historical factors that have influenced the location of office stock across the metropolitan area.

We have sourced our forecasts for the SAOWF over the next ten years for the CBD, North Sydney, Macquarie Park, Parramatta, St Leonards and Chatswood from our *Sydney Commercial Property Prospects* and *Sydney Suburban Centres and Office Parks 2015 to 2025* reports. For each of the remaining 31 centres and for employment projections beyond 2025, we apply the following growth rates:

| *SAOWF Growth rate* | *Low* | *Moderate* | *Moderate to medium* | *Medium* | *High* |
|---|---|---|---|---|---|
| % per annum | 0.5 | 1.0 | 1.5 | 2.0 | 3.0 |

- We estimate that the CBD will reach theoretical capacity (assuming existing planning controls) by around 2034. In reality, the ‘theoretical’ capacity is unrealistic and actual capacity will be reached sooner. At this stage, North Sydney will join Chatswood and Rhodes in having reached their capacity.
- Developers will typically go to the next most attractive locations for tenants (once financial feasibilities work). Parramatta, St Leonards, Green Square and Pyrmont/Ultimo should still have a reasonable degree of expansion potential, whilst Macquarie Park, Norwest and Olympic Park are amongst the major existing centres which have substantial capacity to grow. Whilst we have assumed no substantial change in planning policies such as zoning and floor space ratios, it is likely that some centres will see rezoning of selective sites or areas to facilitate higher density development over the medium to longer term.
- Looking further ahead, by 2035 we assess that—other things being equal—opportunities for office development will start to be limited in Parramatta, St Leonards and Pyrmont/Ultimo. However, given the important regional role of Parramatta within Western Sydney, Parramatta Council is currently reviewing planning controls to allow for substantially more office development.
- At this stage, there will be locations, including Macquarie Park, South Sydney and Olympic Park that should still have plenty of expansion potential—even given competition from residential uses.
- Information on capacity in smaller centres is hard to come by, but we estimate that many or most of the smaller office centres will have spare capacity for decades to come, until such time as overflow demand from elsewhere in the metropolitan area puts these centres on a higher growth trajectory.

## 5.1 Sub-region: Central

### 5.1.1 Sydney CBD

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 224.2 | 240.8 | 262.1 | 276.8 | 298.2 | 318.0 |

- The Sydney CBD is identified as a ‘CBD’ within the 2014 Metropolitan Strategy. Parramatta is also identified as a ‘CBD’ under the strategy. The Sydney CBD comprised close to 40% of the metropolitan stand-alone office workforce (SAOWF) at 2010. It features some of Australia’s most significant industry clusters, particularly in the areas of finance, business services and government administration. It also contains almost all of the city’s premium grade office space.
- Over the 11 years to 2025, the CBD’s share of the metropolitan SAOWF is only expected to fall moderately to 38%, largely as a result of intensive office development at Barangaroo. However, there are no other sites within the CBD that offer a similar opportunity to create a new commercial precinct of premium quality. As a result, we expect subsequent development will increasingly involve replacement of existing building stock.
- Sydney operates on an overflow model—there is a preference to lease and develop within the CBD, but once sites become constrained there and occupancy costs rise, tenants and projects will overflow into suburban centres and office parks.
- Under existing planning controls, we expect the CBD’s SAOWF to continue expanding at a ‘moderate to medium’ growth rate until it hits capacity constraints around 2034. However, we’re concerned that it may not be realistic to achieve ‘theoretical’ capacity given existing site constraints (e.g. strata ownership, existing substantial buildings or other individual site issues). After 2034, we have assumed a ‘low growth’ scenario for the SAOWF. We anticipate rezoning of selected sites by City of Sydney to facilitate higher density development, but not broadly based increases to permissible densities.
- During upswing periods of the residential cycle, apartment development will compete strongly with offices for sites within the CBD, particularly in the southern precinct and elsewhere where sites offer Harbour/Park views.
- Sydney’s transport network at present reinforces the central role of the CBD within the metropolitan hierarchy. Major transport projects such as the CBD Light Rail and proposed Sydney Metro will boost the CBD’s transport capacity over the long term. However, by 2035, we anticipate improvements to the metropolitan transport network will also strengthen the strategic centres outside the CBD.
- By 2035, the SAOWF within the CBD is projected to decline to 39% of metropolitan SAOWF, down from 40% at 2010.
- We expect the CBD would capture a share of the stand alone office employment growth generated in the run up to the opening of the Badgerys Creek Airport in the mid 2020s as well as a proportion of the ongoing jobs growth once the airport is operational.

### 5.1.2 Bondi Junction

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 5.5 | 5.8 | 5.9 | 6.1 | 6.2 | 6.4 |

- Much of the SAOWF growth in Bondi Junction occurred during the1980s following the completion of the Eastern Suburbs Railway. Whilst there have been occasional office developments since then, residential uses have increasingly competed for sites.
- Demand within the centre is largely supply-led i.e. it’s only when there is a new office project, that we see any growth in the SAOWF.
- The key demand drivers impacting Bondi Junction are its proximity to the CBD and to an ‘executive’ workforce that would typically be employed in office buildings. However, whilst there is capacity within the CBD, we expect workforce growth to occur there, although some local services based growth may continue to underpin ‘‘low growth’’ in the SAOWF within Bondi Junction.
- Once the CBD reaches capacity, we expect some overflow demand to underpin ‘moderate’ employment growth within Bondi Junction. Whilst residential uses will continue to compete for sites, there will likely be sites within or surrounding the centre that could be rezoned to permit office development.

### 5.1.3 Burwood

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 5.9 | 6.1 | 6.2 | 6.4 | 6.5 | 6.5 |

- Much of the SAOWF growth in Burwood occurred during the1980s, with relatively few new developments since then. As a result, demand within the centre is largely supply-led i.e. it’s only when there is a new office project, that we see any growth in the SAOWF.
- Burwood has historically competed with Strathfield for office development, although Strathfield is better located on the public transport network. Even so, neither centre has been successful over recent years in attracting strong growth in the SAOWF.
- Whilst we expect SAOWF growth to continue at a ‘low growth’ rate until the CBD becomes capacity constrained around 2034. After that, we anticipate that it will see ‘moderate growth’.

### 5.1.4 Port Botany/Botany

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 |

- Port Botany has been identified as a Transport Gateway within the Metropolitan Strategy.
- To date, dedicated office space in the area is largely contained within the Lakes Business Park and other nearby buildings. Tenant demand is largely Port or Airport related, however, most tenants seeking dedicated office space within the region are likely to favour Mascot, the Airport or sites closer to the CBD.

- We do not expect any significant growth in the SAOWF over the forecast horizon and have assumed a 'low growth' rate.

### 5.1.5 Randwick

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 |

- Randwick is identified as a Strategic Centre within the Metropolitan Strategy. The main growth drivers are the Prince of Wales Hospital and University of NSW. Even so, it has failed to develop a critical mass of commercial office space to date.
- Population growth within the local area is likely to be limited although the development of the CBD and South East Light Rail will improve accessibility. The area is also well located to the CBD. As a result, we have assigned a 'low growth' to the SAOWF over the short to medium term, before climbing to 'moderate growth' once the light rail is completed later this decade.

### 5.1.6 Sydney Airport/Mascot

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 7.5 | 8.1 | 8.8 | 9.2 | 9.7 | 10.3 |

- Sydney Airport and Environs is identified as a Transport Gateway under the Metropolitan Strategy. To date much of the office space in the area has been focused in Mascot, with tenants reflecting property and business services and transport and storage sectors, echoing the proximity to the Airport.
- Efforts have been made to protect commercial/industrial land surrounding the Airport and Port from competing uses.
- There is considerable potential both on the Sydney Airport lands and adjacent to the Airport and in Mascot for future office space. Restrictions on Airport lands regarding occupancy and height have acted as a constraint to development. However, lands adjacent to the Airport will continue to attract office development, particularly on an overflow basis.
- Mascot is within easy access to the CBD and is part of the Global Economic Corridor. As such, it is expected to capture a steady share of SAOWF growth. Emerging centres such as Green Square, which are closer to the CBD, may compete with Mascot, however Mascot/Airport has an advantage of existing critical mass.
- We anticipate the SAOWF will grow at a 'moderate pace' until the CBD starts to hit capacity constraints around 2034. Thereafter, we have assumed growth will escalate to a 'medium' rate.
- The development of a second airport at Badgerys Creek could be expected to have a negative impact on the SAOWF at Sydney Airport/Mascot, as some existing companies would be attracted to the new airport by cheaper rentals and land availability.

#### 5.1.7 Green Square

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 0 | 0 | 0 | 1.1 | 1.2 | 1.4 |

- Green Square is identified as a Strategic Centre under the Metropolitan Strategy. However, it has yet to attract any stand-alone office buildings, with development activity in the precinct dominated by residential buildings.
- There are a limited number of sites within the precinct capable of accommodating office development—the Green Square Town Centre having the potential for around 100,000 square metres of office space. Even so, the challenge for these locations, alongside other current and proposed office areas including Mascot, the Australia Technology Park and the Airport, is to attract tenants of sufficient scale as to allow significant office clusters to develop.
- We expect that the precinct will operate as an overflow for the CBD, but that it will require a pre-commitment from a major tenant to kick-start activity. We have assumed that this will occur at the tail end of the current upswing early next decade.
- Once development gets underway, we have assumed that the SAOWF will grow at a ‘medium growth’ rate until the CBD approaches capacity. At this point, we would expect Green Square to attract a ‘high growth’ rate.

#### 5.1.8 Camperdown/Redfern/Eveleigh (excluding Chippendale)

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 9.1 | 9.3 | 9.6 | 9.8 | 10.1 | 10.6 |

- Camperdown/Redfern/Eveleigh, like Green Square, has numerous sites that have the potential for office development. Part of the area is identified as an expansion area for the CBD under the Metropolitan Strategy (the Central to Eveleigh Corridor) which includes the Australian Technology Park.
- We do not expect any significant growth in the SAOWF over the short to medium term (i.e. a ‘low growth’ rate). However, as the CBD reaches capacity, we expect the area to experience a ‘high growth’ rate.
- Residential uses will continue to compete for commercial sites during upswing phases of the residential cycle.

#### 5.1.9 Pyrmont/Ultimo

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 16.1 | 16.0 | 16.4 | 16.8 | 17.2 | 18.1 |

- Pyrmont/Ultimo is considered an extension of the Sydney CBD under the Metropolitan Strategy. It has developed into a reasonable sized office precinct off the back of its close proximity to the CBD, relatively cheaper rental costs and the availability of sites for conversion or re-development.

- The University of Technology and the casino/wharves on the eastern side of Pyrmont have acted as drivers for a clustering of niche industry users, including IT&T, media related and education businesses.
- Over the past decade or so, commercial development has had to compete for sites with residential projects and we expect this to continue. Indeed, we estimate the SAOWF fell between 2010 and 2015 as the result of existing occupied office space being converted to residential uses.
- A further constraint to commercial development is accessibility around the precinct by public and private transport and the fact that it is not within easy walking distance to the CBD.
- The precinct has no vacant sites where major office projects are planned, although there can be expected to be some new office building once the CBD reaches capacity constraints and/or during periods of high rental growth within the CBD. An active strategy by state and local government to encourage higher density development could also underpin more office construction. We expect the SAOWF will grow at a ‘low growth’ rate until the CBD starts to reach capacity, underpinning stronger “high growth’ office employment.

## 5.2 Sub-region: North

### 5.2.1 North Sydney

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 41.5 | 42.3 | 46.5 | 48.6 | 52.3 | 55.8 |

- North Sydney is identified as part of the ‘CBD’ in the 2014 Metropolitan Strategy, with a SAOWF of around 42,000 persons at 2010, or around 7.4% of the metropolitan SAOWF.
- North Sydney forms part of the Global Economic Corridor and acts as a key overflow market for the CBD. The key drivers of demand for office space within the office centre include its proximity to the CBD, excellent public transport access, cheaper rentals relative to the CBD and proximity to the executive belt.
- Under existing planning controls, we expect North Sydney to expand at a ‘moderate to medium growth’ rate until it hits capacity constraints around 2034. We have assumed a ‘low growth’ scenario for employment over the remainder of the forecast horizon.
- Whilst there is some potential to expand the North Sydney centre with changes to zonings or through more generous FSRs, there is currently pressure on commercial sites for redevelopment to residential uses and this is expected to continue into the future.
- By 2035, the SAOWF within North Sydney is projected to decline to 6.9% of the metropolitan SAOWF, from 7.4% at 2010.

### 5.2.2 Brookvale/Dee Why

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 2.5 | 2.6 | 2.7 | 2.7 | 2.8 | 2.9 |

- Brookvale/Dee Why is identified within the Metropolitan Strategy as a Strategic centre. However, it has failed to develop a critical mass of commercial office space.
- With few growth drivers, poor access to the transport network and limited prospects for population growth, the SAOWF within these centres is projected to grow at a ‘low rate’ over the horizon to 2035.

### 5.2.3 Chatswood

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 11.7 | 13.7 | 13.7 | 13.7 | 14.0 | 14.4 |

- Whilst Chatswood is identified as a Strategic Centre under the Metropolitan Strategy, the SAOWF within the centre has seen only moderate growth over the last five years, reflecting increasing competition from other centres—most notably Macquarie Park—and competing demands for sites from other uses, particularly residential.
- The commercial core of the centre is constrained by the railway and Pacific Highway. Most sites that were earmarked for future office space have now been turned over to residential use and unless Council takes proactive steps to identify and rezone new sites, there is unlikely to be any significant growth in office stock over the forecast horizon.

- Residential uses are expected to continue to compete for sites within Chatswood during upswing phases of the cycle.
- We have assumed a ‘low growth’ rate in the SAOWF from 2025 unless there is an active strategy by state and local government to encourage greater office development.

### 5.2.4 Hornsby

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 2.3 | 2.6 | 2.7 | 2.8 | 3.0 | 3.1 |

- Hornsby is identified as a Strategic Centre under the Metropolitan Strategy. However, it has failed to develop a critical mass of commercial office space since the 1970s despite being located in a relatively high population growth area.
- It is likely that Hornsby has lost market share to Macquarie Park as it has transitioned from a business park to an office park location. It has also lost market share to Norwest.
- Notwithstanding this, we believe that Hornsby can benefit from its location in relation to the Central Coast growth area and from continued improvements to the transport network.
- There are still sites with potential for higher density office development within the centre and potential for expansion of the existing boundaries of the centre, although residential apartment development will compete for sites at times.
- We have assumed a ‘moderate growth’ in the SAOWF over the forecast horizon to 2035, with Hornsby expected to see some overflow demand once Norwest and North Ryde reach capacity.

### 5.2.5 Macquarie Park/North Ryde

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 35.2 | 39.9 | 47.4 | 52.2 | 60.5 | 70.2 |

- Macquarie Park has been identified within the Metropolitan Strategy as a Strategic Centre that forms part of the Global Economic Corridor. Over the past decade it has evolved from a business park—with strong research links to Macquarie University and a mix of office and industrial uses—to a dedicated office precinct. It is now the largest office precinct in Sydney outside of the CBD.
- Macquarie Park’s evolution as an office centre, offering relatively new buildings at competitive rents and with significant industry clusters in the pharmaceutical and bio-medical sectors, will see the centre gain share at the expense of other major North Shore markets.
- Macquarie Park also has an abundance of sites for future office development. Indeed we do not expect the centre to even come close to reaching its capacity over the next 20 years. Ryde Council have recently submitted an amendment to their 2014 LEP to the Department of Planning & Environment that aims to maintain the Macquarie Park Corridor as a business park, but allow for some higher density development, whilst protecting the commercial core from being lost to residential uses.

- Whilst there are some transport constraints impacting the centre, the rail link has improved accessibility for workers and linkages to other centres.
- We expect the SAOWF will see a 'high growth' rate throughout the forecasting horizon.
- Macquarie Park's growth rate is expected to outpace all other centres within Sydney over the medium to longer term.

### 5.2.6 Rhodes

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 7.5 | 7.9 | 8.1 | 8.3 | 8.5 | 8.7 |

- Rhodes has been identified within the Metropolitan Strategy as a Strategic Centre. It developed very quickly as an office precinct last decade, in part underpinned by a leasing commitment by developer, Australand, because it was well located on one of the main road and rail lines and because it offered good parking ratios.
- It has operated on an overflow model, with reasonably comparable rents to nearby Macquarie Park attracting tenants to it. Traffic congestion at Macquarie Park also acted as a push factor.
- Proximity to Homebush Bay, new retail facilities and a growing resident population has also underpinned growth.
- Rhodes is effectively built out as an office precinct. Whilst there are still vacancies amongst existing office buildings, which will allow some further growth in the SAOWF, we do not anticipate any new building.
- As such we have assumed a 'low growth' scenario over the remainder of the forecasting period.

### 5.2.7 St Leonards

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 16.6 | 17.8 | 18.8 | 20.3 | 22.5 | 25.0 |

- St Leonards has been identified within the Metropolitan Strategy as a Strategic Centre. It has developed as an office centre largely through the 1980s on an overflow logic – as rentals increased in North Sydney companies moved further northwards to the nearby centre. The cheaper rentals, relative to North Sydney and the CBD, have been a major drawcard in the success of the centre.
- It is well located, with good rail and road network access, as well as being close to the North Shore's executive belt.
- As a relatively small office precinct, it has been subject to sharp fluctuations in vacancies, reflecting tenant movements and new supply having a significant impact.
- Over recent years, office stock in St Leonards has faced competing demands for residential uses. This is expected to continue. However, there remains considerable potential for office

development particularly in the portion of the centre regulated by Lane Cove Council and on the state government controlled North Shore Hospital site.

- Whilst there remain sites available for office development within St Leonards, we expect that the SAOWF will grow at a ‘medium growth’ rate – even at a ‘high growth’ rate once the CBD and North Sydney start to reach capacity constraints around 2034. We expect that St Leonards will not reach office space capacity over the forecast horizon.

### 5.2.8 Gordon/Pymble

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 4.0 | 4.2 | 4.4 | 4.6 | 4.9 | 5.1 |

- Gordon and Pymble saw a number of stand-alone office buildings developed during the 1980s and 90s, as a result of their proximity to the major North Shore centres, the North Shore rail line and the executive belt, as well as lower accommodation costs.
- However, their relative distance to the CBD makes them less attractive for tenants than competing centres such as Chatswood, St Leonards and North Ryde.
- Over the past decade the SAOWF has only grown in line with the completion of new office projects. There are few sites with potential for future office space. Without an active strategy by state and local government to encourage higher density development, we anticipate the SAOWF will grow at a ‘moderate growth’ rate over the forecast horizon.

### 5.2.9 Frenchs Forest

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 2.2 | 2.3 | 2.6 | 2.7 | 2.7 | 2.8 |

- Frenchs Forest is not specifically identified as a centre in the Metropolitan Strategy. However, the suburb includes the Northern Beaches Hospital Precinct, which is identified as a ‘Strategic Centre’. Initially developed as a high tech business park, Frenchs Forest attracted a number of stand-alone office buildings during the 1980s, but little new development since then.
- The successful transitioning of Macquarie Park into an office park was at the expense of Frenchs Forest. However, it is likely that Frenchs Forest has sites that could accommodate future office development.
- The development of the new Northern Beaches Hospital, due for completion in 2018 could act as a driver for office space. Much of this demand is likely to be accommodated within vacancies amongst existing stock. However, we have allowed for a small amount of new office space to be built late this decade with an accompanying rise in SAOWF. Other growth prospects for Frenchs Forest are likely to occur on an overflow logic as other better located centres start to reach capacity constraints.
- We expect the centre’s SAOWF to grow at a ‘low growth’ rate until the CBD/North Sydney markets become close to fully developed, then show a ‘moderate growth’ rate.

## 5.3 Sub-region: West Central

### 5.3.1 Parramatta

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 34.9 | 37.8 | 46.5 | 51.6 | 59.8 | 66.7 |

- Parramatta is identified within the Metropolitan Strategy as Sydney's second "CBD". As such, state government planning policy will aim to facilitate substantial jobs growth within the centre, most notably by extending the Global Economic Corridor to connect with Parramatta CBD, but also by improving transport connections to its wider catchment in line with the *Long Term Transport Master Plan*.
- In the short term, employment in Parramatta will be boosted by new office projects as part of the Parramatta Square redevelopment.
- Medium to longer term, Parramatta is one of the few existing major centres within Sydney that have an abundance of sites to accommodate a steady supply of new office development.
- One of the challenges for Parramatta is attracting workforce from the private sector. Historical development has been driven in large part by the government sector, with Parramatta competing for tenants with markets such as Macquarie Park and Norwest.
- Under existing planning controls, we expect Parramatta to expand at a 'high growth' rate until it hits capacity constraints around 2033. Thereafter, we have assumed a 'moderate growth' scenario for employment, which allows for rezoning of sites or expansion of the centre to permit continued office development.
- Currently, Parramatta Council is undertaking a review of the planning controls with the potential to significantly increase the commercial development capacity in the CBD. As part of this review, Council is considering substantially increasing permissible floor space ratios as well as expanding the footprint of the CBD. Council is also looking at measures to protect the CBD core for commercial purposes against competing uses, particularly residential.
- By 2035, Parramatta's SAOWF is projected to rise from 35,000 persons to 67,000, with the centre growing from 6.2% of the metro SAOWF to 8.2%.
- The development of the second airport at Badgerys Creek should also provide a boost to Parramatta's stand alone office workforce, given its location as the nearest major centre.

### 5.3.2 Bankstown

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 4.0 | 4.2 | 4.4 | 4.5 | 4.6 | 4.7 |

- Bankstown is identified within the Metropolitan Strategy as a Strategic Centre forming part of an Enterprise Corridor. However, it has failed to develop a critical mass of commercial office space.
- The Bankstown Airport site has the potential for mixed use development that could include commercial office space. Such development would likely compete with the Town Centre for

office tenants. However, under the current Airport Master Plan, the focus of planned redevelopment is for industrial uses.

- With few growth drivers, we anticipate the SAOWF within Bankstown is projected to grow at a 'low rate' over the horizon to 2035.

### 5.3.3 Blacktown

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 2.0 | 2.3 | 2.3 | 2.4 | 2.5 | 2.6 |

- Blacktown is identified within the Metropolitan Strategy as a Strategic Centre. However, it has failed to develop a critical mass of commercial office space or SAOWF. There has been a lack of demand for office buildings within the centre, with much of the office development in Western Sydney focused on Parramatta or Norwest.

- Notably, Blacktown has failed to attract government departments, head offices of major corporations or back office functions. We do not foresee any real change to this trend—whilst there are some sites with potential for office development within the City centre, we expect much of the future office or business park development to occur in business parks within the LGA. This could be significant, given the central location of Blacktown within the Sydney region and the availability of land.

- Whilst population growth within the LGA (and region) has been strong, much of the jobs growth has occurred amongst industry sectors that are not typically employed in office buildings including manufacturing, construction and wholesale/logistics, with employment typically occurring in mixed use business parks at locations such as Greystanes, Eastern Creek and Erskine Park. Indeed, there are several business parks with potential to capture high office content projects in the Blacktown LGA, and the development of the Western Sydney Employment Hub—with excellent access to key transport corridors— is likely to see it become the focus of future white collar jobs growth.

- Moreover, whilst Blacktown has a large workforce from which to draw labour, the sub-region has a higher overall 'blue collar' component of workforce compared with Sydney as a whole. Many of Sydney's executives are located in the northern or eastern suburbs and this geographic barrier is a constraint to office development in Blacktown, although improvements to transport networks will ameliorate this.

- We have assumed that the SAOWF within Blacktown centre will maintain a 'low growth' trajectory until such time as Parramatta reaches capacity constraints. Thereafter, we expect Blacktown will start to see 'moderate growth'. It should be noted that the LGA as a whole will likely experience much stronger SAOWF growth.

### 5.3.4 Castle Hill

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 2.9 |

- Castle Hill has experienced 'moderate growth' in its SAOWF, although it has lost share to Norwest over the past decade. It is identified within the Metropolitan Strategy as a Strategic Centre.

 

- Even so, Castle Hill is well located to the white collar workforce and has sites with potential for office development. It is also well positioned on the transport network and will benefit from planned infrastructure upgrades, particularly with the completion of the North West rail link in 2019.
- Castle Hill may also benefit from State Government initiatives aimed at extending the reach of the global economic corridor to incorporate Castle Hill and Norwest.
- We expect that SAOWF will experience ‘low growth’ between now and the end of the decade. Post 2020, we have allowed for Castle Hill to capture a ‘moderate growth’ rate throughout the forecast horizon, receiving some overflow demand from Norwest.

#### 5.3.5 Norwest

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 13.8 | 16.1 | 17.3 | 19.1 | 21.0 | 23.2 |

- Norwest has been identified within the Metropolitan Strategy as a Strategic Centre surrounded by an area defined as a Priority Precinct-Major Urban Renewal. At present the centre contains around 300,000 square metres of office space and we estimate that it has the potential to expand to around 600,000 square metres.
- Like Macquarie Park, Norwest initially developed as a mixed use business park, but more flexible zonings within planning schemes saw a trend towards higher office content developments from early last decade. Initially development was almost entirely pre-commitment driven although this has changed over recent years. Generous car parking provisions also encouraged commercial development.
- Demand for office space at Norwest has been driven by both purpose-built requirements of major users such as Woolworths, Schneider and Cathay Pacific, to smaller tenants from neighbouring centres such as Castle Hill looking for better quality space.
- There is a strong overflow logic to development at Norwest. When rents get too expensive in either Macquarie Park or Parramatta, some tenants will relocate to cheaper sites at Norwest.
- Norwest is expected to benefit significantly from the North West rail link in 2019 and from continued (high socio economic) population growth in the north west sector.
- We anticipate that the SAOWF at Norwest will continue to grow at a ‘moderate’ growth rate until 2019 before increasing to ‘medium’ for the remainder of the forecast horizon. At these rates of growth, we would not expect Norwest to reach its capacity by 2035.

#### 5.3.6 Olympic Park

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 5.7 | 7.4 | 8.2 | 9.1 | 10.0 | 11.0 |

- Olympic Park has been identified within the Metropolitan Strategy as a ‘Strategic Centre’ linking into the Global Economic Corridor. Under the *Master Plan 2030* (which is currently being reviewed by the Sydney Olympic Park Authority) it has the potential to more than triple in size as an office precinct over the long term from its current stock base of around 130,000 square metres.

- The centre is well located at close to the geographic centre of Sydney. Like Macquarie Park and Norwest, its initial development was as a business park, but recent development has favoured offices and many have been developed on a speculative basis. The centre is viewed generally as offering a corporate-style location and has excellent infrastructure.
- Olympic Park acts as an overflow market from Macquarie Park and Rhodes—rentals for equivalent space are typically lower in Macquarie Park, but tenants may relocate as rental costs increase.
- Development is controlled by a single planning authority, providing greater confidence for developers about timing of land releases.
- Whilst road access is good, rail infrastructure is a constraint at Olympic Park.
- Even so, we expect that Olympic Park will continue to grow at a ‘medium growth’ rate over the forecasting horizon.

#### 5.3.7 Westmead

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 |

- Westmead is identified under the Metropolitan Strategy as part of the Greater Parramatta CBD. Westmead is a specialised health precinct focused on Westmead Hospital. Even so, it has failed to develop a critical mass of commercial office space to date.
- The precinct is well located to Parramatta, is located on the western rail line and we expect that it could receive overflow demand from Parramatta as it starts to reach capacity. The Hospital is likely to generate demand from related medical users for office space in a similar manner to that underpinned by Royal North Shore Hospital. We have allowed for the completion of a small amount of new office space and accompanying rise in SAOWF early next decade to reflect this. Even so, whilst there is adequate land in Parramatta, we expect Westmead’s SAOWF growth to continue at a ‘low growth’ rate.

#### 5.3.8 Rouse Hill

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | 0.3 |

- Rouse Hill is identified as a Strategic Centre under the Metropolitan Strategy, but to date it has not captured any dedicated office buildings. Instead, development has focused on a retail town centre development to service the strongly growing population catchment.
- Rouse Hill is well located to the North West Growth Area, but is not expected to compete with Norwest for SAOWF growth in the foreseeable future.
- Rouse Hill is well located to a strongly growing workforce and will benefit from the completion of the North West Rail Line in 2019. If it can secure an anchor tenant to underpin a project it could see growth proceed at a ‘moderate growth’ rate. We have allowed for the completion of a small scale office building early next decade.

 

#### 5.3.9 Marsden Park

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |

- Marsden Park has been identified as a Strategic Centre under the Metropolitan Strategy. To date, development at the commercial/industrial precinct has been focused on bulky goods/industrial uses, with no stand-alone office buildings.
- The centre is located 40 kilometres northwest of Sydney's CBD near the M7 Motorway, and is central to the North West Growth Area. As such, it will leverage off a strong population growth area and steadily improving road and rail infrastructure.
- However, SAOWF growth is likely to favour existing centres such as Norwest until such times as they reach capacity constraints. Development at Marsden Park will likely require an initial significant pre-commitment tenant to underpin the first round of construction. We have assumed this could occur around 2034. Thereafter, we have assumed growth in the SAOWF will occur at a ‘medium growth’ rate.

## 5.4 Sub-region: South

### 5.4.1 Hurstville

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 4.7 | 4.9 | 5.0 | 5.1 | 5.2 | 5.4 |

- Much of the SAOWF growth in Hurstville occurred during the1970s and ‘80s, with relatively few new developments since then. It has come close to reaching the critical mass required to sustain it as a centre against competing centres and has been identified as a Strategic Centre under the Metropolitan Strategy.
- However, at present, demand within the centre is largely supply-led i.e. it’s only when there is a new office project, that we see any growth in the SAOWF.
- Residential apartment development does compete with offices for sites within and around the town centre and this is expected to continue.
- We expect SAOWF growth to continue at a ‘low growth’ rate over the long term unless there is an active strategy by state and local government to encourage greater development.

### 5.4.2 Kogarah

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 2.3 | 2.4 | 2.5 | 2.5 | 2.6 | 2.6 |

- Kogarah is classified under the Metropolitan Strategy as a Strategic Centre.
- To date, it has failed to develop a critical mass of commercial office space, with stock dominated by the head office of St George Bank. The key driver of SAOWF is the St George Hospital. However, we expect that over the forecast horizon, office employment within the region is likely to occur either around Kingsford Smith Airport or in Hurstville.
- As a result, we have assumed a ‘low growth’ rate for the SAOWF unless there is an active strategy by state and local government to encourage greater development.

### 5.4.3 Sutherland

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.9 |

- Sutherland is not identified as a centre of strategic importance under the Metropolitan Strategy, however, it is located at the end of an Urban Renewal Corridor. It has failed to develop a critical mass of commercial office space to date.
- Other existing centres, such as Hurstville and Mascot, and emerging centres such as Green Square offer closer proximity to the CBD and are likely to be favoured by office tenants.
- With few growth drivers, the SAOWF within Sutherland is projected to grow at a ‘low rate’ over the horizon to 2035 unless there is an active strategy by state and local government to encourage greater development.

 

## 5.5 Sub-region: West

### 5.5.1 Penrith

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| *'000 persons* | 6.0 | 6.1 | 6.3 | 6.4 | 6.6 | 7.0 |

- Penrith is identified as a Regional City Centre under the Metropolitan Strategy. However it has not yet developed a critical mass in terms of SAOWF. Whilst population and total jobs growth within the LGA has been strong, much of the jobs growth has occurred amongst industry sectors that are not typically employed in office buildings. Instead, office employment within the Western and North-Western regions has focused on either Parramatta or Norwest Business Park.
- Furthermore, because of its geographic distance from the CBD, and from the executive belt of the north shore, we anticipate SAOWF growth within Penrith in the short to medium term will continue to occur on an 'overflow' basis and at a "low growth" rate.
- It's only once Parramatta and Norwest start to reach capacity constraints (around 2033) that we expect SAOWF in Penrith to grow at a faster rate.
- Availability of sites should not be a constraint to development in the longer term. There are a number of Council and Government owned sites close to the city centre and the railway station which offer significant redevelopment potential. The 50 hectare North Penrith Defence site, adjacent to the rail station, is pre-eminent amongst these potential redevelopment sites.
- Over time, key employment generators for the centre will include nearby assets such as Penrith Panthers, Penrith Lakes residential and recreation areas, Nepean Hospital, the Werrington Enterprise, Living and Learning Precinct. Continued population growth and improvements to transport infrastructure will also underpin growth.

## 5.6 Sub-region: South West

### 5.6.1 Liverpool

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| ‘000 persons | 5.8 | 5.9 | 6.9 | 7.1 | 7.9 | 8.7 |

- Liverpool is identified as a Regional City Centre under the Metropolitan Strategy and like Penrith has not developed a critical mass in terms of SAOWF. There has been a lack of demand for office buildings within the centre, with much of the office development in the outer region focused on Parramatta.
- Notably, Liverpool has failed to attract government departments, head offices of major corporations or back office functions to date. Much of the current building stock within the Liverpool town centre is secondary quality and not attractive to large scale or corporate tenants.
- Whilst population growth within the LGA is very strong – well in excess of the metropolitan average—much of the jobs growth has occurred amongst industry sectors that are not typically employed in office buildings, such as manufacturing, construction and wholesale/logistics. This trend is likely to continue unless there is a catalyst for change.
- The Liverpool LGA is located at the intersection of key transport corridors including the M7 and M5 motorways and the Hume Highway. Completion of the Orbital Motorway and the Parramatta-Liverpool Transitway has improved the connectivity of the centre.
- The main growth drivers are in the health and education sectors and include Liverpool Hospital as well as the upcoming University of Western Sydney Learning Centre (due to open in 2016).
- Council is committed to a range of initiatives aimed at revitalising Liverpool centre, which has no major constraints on potential office development. Indeed, Council is asking for amendments to the 2008 LEP to allow mixed use developments, which are currently not permitted in the city centre. Even so, there are plenty of sites with potential for redevelopment. We have allowed for 16,000 square metres of stand alone office space to be built incorporating two buildings, due for completion around 2017. The first building caters to the State Government’s minimum 5,000 square metre requirement, with the second being Brydens Lawyers’ recently approved tower on Elizabeth Street. We have allowed for an increase in employment in line with these projects. Other projects either underway or proposed are mixed use (i.e. not dedicated office buildings) or have not yet been confirmed as proceeding.
- Because of its geographic distance from the CBD, and from the executive belt of the north shore and eastern suburbs, we anticipate SAOWF growth within Liverpool in the short to medium term will continue to occur on an ‘overflow’ basis and at a ‘low growth’ rate. The exception is an allowance for a rise in employment associated with the two office projects described above. Council’s push to allow mixed use projects in the city centre means much of the office employment growth is likely to be captured by buildings which are not dedicated office towers.
- We expect Liverpool to capture a large share of airport-related SAOWF employment once Badgerys Creek airport is operational from the mid 2020s due to its close proximity,

boosting growth up to a 'medium level'. Longer term, SAOWF growth will also be supported after Parramatta approaches capacity in 2034.

### 5.6.2 Campbelltown

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 2.5 | 2.5 | 2.6 | 2.6 | 2.7 | 2.8 |

- Campbelltown-Macarthur is identified within the Metropolitan Strategy as a Regional City Centre. However, it has failed to develop a critical mass of commercial office space since the 1970s despite being located in a high population growth area.
- Whilst population growth within the LGA has been strong, much of the jobs growth has occurred amongst industry sectors that are not typically employed in office buildings including manufacturing, construction and wholesale/logistics. This trend is likely to continue, with no clear catalyst for change.
- Moreover, whilst Campbelltown has a large workforce from which to draw labour, the sub-region has a higher overall 'blue collar' component of workforce compared with Sydney as a whole.
- Because of its geographical location, we anticipate the SAOWF within Campbelltown will continue to grow at a 'low rate' over the horizon to 2035.

### 5.6.3 Leppington

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 |

- Leppington has been identified under the Metropolitan Strategy as a Strategic Centre. To date, it has not captured any stand-alone office buildings and remains largely as a greenfields site.
- Leppington is well located within the South West Growth Area that is projected to accommodate a considerable proportion of Sydney's future population and economic growth and is relatively close to the key transport corridors servicing the area. A rail link has recently been completed off the south western line to service future population growth at Leppington.
- Despite these benefits, we expect future office employment growth in the region to focus on Liverpool rather than emerging locations such as Leppington. Any office space developed there is likely to be of a service nature as part of a local neighbourhood centre rather than a stand-alone office building. We have allowed for the completion of a small office building late next decade.
- Given the proximity of Leppington to the proposed site of Badgerys Creek, it is possible the area could see the evolution of business park facilities associated with the airport. This could occur either on or adjacent to airport lands and could be expected to accommodate office space. This is likely to occur over a much longer time horizon.

### 5.6.4 Badgerys Creek

| *SAOWF* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|
| '000 persons | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

- Badgerys Creek is currently a semi rural area, but well located to the South West Growth corridor and with reasonable proximity to road and rail networks.
- With no new airport, we do not anticipate any SAOWF growth would occur at Badgerys Creek over the forecast horizon. Office development would favour Liverpool.
- With the development of the airport at Badgerys Creek, we would expect to see airport related uses developed on airport land as well as adjacent areas. However, initially, development is likely to be in either specialised airport terminal buildings or industrial buildings, with business parks/office clusters taking a much longer timeframe to emerge.

 

# APPENDIX

# A1. METHODOLOGY: MEASURING DEMAND FOR AND SUPPLY OF OFFICE SPACE

## Definition of office space

'Office space' is defined as space in buildings where office functions are the principal usage. This is the Australian Bureau of Statistics definition. It excludes ancillary office space in factories, hospitals, warehouses etc. It includes the office component in mixed-use buildings where office space dominates (i.e. over 50 per cent of the building is dedicated to office use). It excludes obsolescent office space.

## The demand for office space

### Stand-alone office workforce

- Office employment growth in the Sydney sub-markets is dependent on total metropolitan office employment growth and competition between the sub-markets. Hence our principal analysis of office employment is for the metropolitan market.
- We define metropolitan Sydney as the ABS Sydney Statistical Division. The 2011 Census introduced a new geographical classification, the Australian Statistical Geography Standard (ASGS) replacing the previous Australian Standard Geographical Classification (ASGC). The new geography introduces a broader classification for capital city areas, the Greater Capital City Statistical Areas (GCCSA) which, for Sydney is comparable to the Statistical Division (SD) from the old classification. This allows direct comparisons between the 2011 and earlier Censuses.
- The 2006 Census introduced a new classification for occupations, the Australian and New Zealand Classification of Occupations (ANZSCO). However, at that time we were still able to obtain Census data based on the old Australian and New Zealand Standard Industrial Classification (ANZSIC) and we used that data in order to be consistent with the previous Census. For 2011, ANZSIC data was no longer available, forcing a change to ANZSCO data.
- We updated 2006 data to reflect the ANZSCO in order to be compatible with 2011 data. This involved comparing occupations between the two classifications. In some cases, occupational categories could only be matched partially or not at all. In addition, we undertook a review of occupations to determine whether they should be included in the White Collar and Office workforce analysis.
- ANZSIC divisions for metropolitan Sydney are available from 1996, 2001 and 2006 census data. Earlier Census data used the Australian Standard Industrial Classification (ASIC) and Australian Standard Classification of Occupations (ASCO) modified to fit the ANZSIC divisions. Estimates between the census years are based on the quarterly ABS, ASIC and ASCO labour force surveys.
- There are differences between census data and labour force surveys for definitional and methodological reasons. Upon receipt of the 2001, 2006 and 2011 census data, we have adjusted for these differences and scaled up census based employment estimates.
- We assume:
  - demand for stand-alone office space is dependent on changes in the stand-alone office employed workforce and changes in the average workspace ratio per office worker;

– change in the stand-alone office workforce is dependent on growth of each ANZSCO industry division, productivity growth and changes in the proportion of office workers within each ANZSCO division.

That is, as at December in year t,

Occupied space$_{(t)}$ = occupied space$_{(t-1)}$ x (1 + growth of SAOWF$_{(t)}$) x (1 + growth of WSR$_{(t)}$)

where, occupied space$_{(t)}$ = occupied space as at December in year t
occupied space$_{(t-1)}$ = occupied space as at December the previous year
growth of SAOWF$_{(t)}$ = growth in the stand-alone office workforce over year t
growth of WSR$_{(t)}$ = growth in the average workspace ratio per office worker over year t

**Measuring stand-alone office employment**

*Total metropolitan workforce → White collar workforce*

Census data is used to establish the proportions of white collar workers in each industry sector of the total workforce. White collar professions are distinguished from other occupations in the Census eg, Managers & Administrators and Professionals. Following the most recent census, the latest available proportions are applied to Labour Force Survey estimates of the total workforce to give the white collar workforce.

*White collar workforce → Office workforce*

Census data is also used to establish the proportions of white collar workers in each industry sector that work in an office rather than other forms of accommodation. Again, the latest census proportions are applied to Labour Force Survey estimates to give our estimates of the office workforce by industry sector.

*Office workforce → Stand-alone office workforce*

A range of data sources is used to establish the proportions of stand-alone office workers in each industry sector. These include historic surveys by BIS Shrapnel, the Property Council of Australia, Sydney City Council, etc. The proportions are applied to our estimates of the office workforce by industry sector to give our measure of the stand-alone office workforce.

### Centre office space capacity constraints

In order to allocate office employment across the Sydney metropolitan area over a long term horizon, it is important to have an understanding of centre capacity constraints. I.e. how much office space can be built in any given centre, under current planning regulations? Once a centre nears capacity, the office employment growth it might otherwise have captured will need to be accommodated elsewhere.

Based on our own internal sources, we have an approximate capacity figure for office stock for 11 of the 35 centres we have been asked to analyse. For this exercise, we were able to update each of these historical estimates under current planning regulations. However, given budgetary constraints were not able to investigate the capacity of the remaining 24 centres. The centres where we have capacity estimates include the largest office centres across the metropolitan area.

 

In order to determine when a centre is likely to hit capacity constraints for office development, we have calculated future office stock by combining projections of office employment with estimates of average workspace ratios (WSRs) and vacancy rates as follows:

- For the CBD, North Sydney, Parramatta, Macquarie Park, St Leonards and Chatswood, we separately forecast office stock levels to 2025, as well as average workspace ratios and market vacancy rates in our Sydney Commercial and Sydney Suburban Centres and Office Parks 2015 to 2025 studies. For the period between 2025 and 2035, we assumed the rate of decline in WSRs for each centre forecast over the next 10 years would continue. For the post 2025 period, we adopted a long run vacancy rate of 8.0% for the CBD and 9.0% for each of the remaining major suburban centres.

- The remaining 29 centres are included what we define as the residual metropolitan office market (the metropolitan area minus the CBD, North Sydney, Parramatta, Macquarie Park, St Leonards and Chatswood). For the short term, we have allowed for projects that we know are under construction to be added to the office stock upon completion. Beyond 2017, we have calculated the office stock for each centre by applying our forecast for the combined residual market vacancy rate and WSR to 2025. After 2025, our assumption is that the long term decline in the residual WSR will continue at the same pace as the next 10 years before applying a vacancy rate of 9% to estimate office stock by centre.

- The assumptions for the average WSRs and vacancy rates for each centre are applied to the reference case, with office employment growth the main varying factor.

- When an office centre is known to have reached its capacity under current planning regulations, we have assumed changes will be made by local council's (e.g. increasing floor space ratios, height restrictions etc.) to allow for continued office development, but at a much slower pace.

### Office employment growth assumptions

We rely on individual market forecasts for growth in the stand-alone office workforce (SAOWF) for the Sydney CBD, North Sydney, Macquarie Park, Parramatta, St Leonards and Chatswood as published in our *Sydney Commercial and Sydney Suburban Centres and Office Parks 2015 to 2025* reports. For each of the remaining 29 centres and for employment projections beyond 2025, we apply the following growth rates:

- 'low growth': 0.5% per annum
- 'moderate growth': 1.0% per annum
- 'moderate to medium growth': 1.5% per annum
- 'medium growth': 2.0% per annum
- 'high growth': 3.0% per annum.

 

## A2. FACTORS INFLUENCING THE LOCATION OF OFFICE DEVELOPMENT

There are a number of factors which have influenced the location of office stock across the metropolitan area and will continue to do so in the future. Many of these factors are not mutually exclusive but are inter-related, i.e. a number of factors have to combine to allow an office precinct to develop.

**Planning policy** can have an important role in shaping the location and nature of office development. For a centre to develop into an office precinct, enough sites need to be zoned for commercial use within a defined area and at a high enough floor space ratio to allow for a critical mass of office space to be developed. However, planning policy by itself is not enough. The success in attracting future office development rests on a company's willingness to accept alternative locations as viable and the availability of readily developable sites. This combination is critical because in the longer term aggregate metropolitan supply of space is demand-led.

The **availability of sites and vacant office space** in preferred locations also dictates where office buildings can be built and where occupants can move. The Sydney office market is an overflow market. Over the next 10 to 15 years, vacant sites for new office development are likely to dry up in the CBD, North Sydney and Chatswood, forcing a shift of development and office employment to other centres. The only way to develop new office buildings in site-constrained centres—once the currently vacant sites are gone—is to redevelop existing older buildings. This is generally only feasible near the peak in the cycle. The drying up of sites in the CBD, North Sydney and Chatswood has already been hastened by an upswing in residential construction, prompting a switch from commercial to residential development where flexible zoning permits.

Furthermore, amalgamating sites large enough to accommodate large scale office buildings is challenging and can take a long time. Delays are typically caused by multiple ownership and existent long term lease contracts.

**The cyclical movements of rents and their relativities** can impact on the medium term allocation of demand. Across Sydney's strategic centres, the CBD is currently the most expensive centre whilst Campbelltown is amongst the cheapest locations. Near the trough of the cycle, when rents are cheap and incentives operate in the market, many 'footloose' companies can afford to lease space in the more prestigious and relatively more expensive CBD or North Shore markets. They become 'temporary' residents who will be forced back into more affordable locations as soon as rents start to rise strongly during the later part of the upswing. The trigger to move is thus not the rental differential between markets but budget hurdles.

The **economic cycle** influences businesses' profitability and their propensity to expand or shrink their workforce, which in turn feeds through to demand for office space.

The economic cycle also influences the structural make-up of office employment, particularly in the business services sector. During a downturn, accountancy firms, lawyers, architects etc. residing in the CBD or one of the established centres experience a decline in demand for their services, with many forced to shed staff. Rather than become unemployed, many of the retrenched professionals—together with some of their staff—will elect to establish their own company or work as consultants from premises located in smaller, suburban centres. Once the economy recovers, many either move their business to one of the more prestigious markets or join larger firms already established there.

One of the key elements in the future success of Sydney's emerging centres and office parks is **to attain a critical mass and density**. In order to attract the necessary secondary services, an area needs a critical mass of office space—not only in terms of the total amount of stock but also in terms of density. Development scattered around a suburb or isolated from major service locations may contain large amounts of space, but is unlikely to reach a critical, self sustaining, mass. Critical mass/density can also be achieved by the **clustering of like minded businesses** in an area. Examples of the latter can be found in the education, legal, health and ITC sectors in locations such as Macquarie Park and Parramatta.

The mass is necessary to **attract services/amenities** to the precinct, including food outlets and coffee shops and general retailing. If such services are located too far away from offices, i.e. not within reasonable walking distance, an area will be considered less attractive.

We estimate that a minimum of 100,000 square metres of stand-alone office space is required to achieve a critical mass. However, if buildings are scattered around a suburb, this figure could rise to 200,000 or 300,000 square metres in order to compensate for the lack of density.

**Transport/infrastructure to allow employee/employer access**. To be an appealing location for an office precinct, an area needs to be well serviced by mass transport—rail and/or road based—allowing for easy access for staff and their clients. Areas which are too remote or difficult to access will be much less appealing.

**Proximity to the executive belt/workforce**. The choice of location is often influenced by the personal preference of owners/senior executives, who prefer centres in close proximity to their place of residence. This is a key reason why many businesses choose to locate on the north shore and at Macquarie Park. Conversely, the appeal of office locations such as Parramatta and Olympic Park is their proximity to the workforce in western Sydney.

**Proximity to health/education/legal precincts** can attract office-based businesses which service/interact with universities, hospitals or courts. Examples include the Macquarie Research Park at Macquarie Park, office buildings containing medical suites adjoining the Prince of Wales Hospital in Randwick or the Norwest Private Hospital, or legal practices at the justice precinct in Parramatta.

**Government support** can influence the development of office buildings in a particular area or centre. The most notable example in Sydney is Parramatta, where numerous buildings have been developed over the last 10 to 15 years to accommodate state government departments. Other office buildings underwritten as the result of government policy include the Australian Taxation Office (ATO) building at Penrith and the National Information and Communications Technology Australia (NICTA) tower at the Australian Technology Park in Eveleigh.

There are **exceptions.** Office development can occur in locations that have no history of attracting office users and/or do not have the infrastructure typically expected/required by prospective occupiers. Moreover, development can occur in locations where existing planning controls prohibit office construction. The main reason for such development is a particular set of user preferences, as shown by examples including IBM's campus at West Pennant Hills or McDonald's national head office at Thornleigh.

### The effects of increasing floor space ratios (FSRs)

Raising FSRs in established centres has two main effects: (1) it increases a centre's capacity to accommodate future growth in office employment and (2) it has the potential to bring forward new construction by improving the per-square-metre-returns of sites.

Raising FSRs in established markets could reduce the need for office users to find an alternative location because of a lack of suitable accommodation/sites. On the other hand, attracting users to a particular location by simply raising FSRs in non-established centres is unlikely to succeed. Office space users require a combination of criteria to be fulfilled before choosing a particular location.

**The impact of increasing FSRs in established major centres**

Raising FSRs in established centres will increase their capacity to accommodate future growth in employment per se. The exact impact is difficult to quantify as it would require knowledge of every site and every building, along with existing development applications.

However, simply applying a new FSR limit to an established market is simplistic. It is most unlikely that relatively new buildings would be demolished to make way for larger projects simply because FSRs have been raised. Moreover, other planning restrictions such as absolute height, building mass, overshadowing, etc. may still apply.

Raising FSRs is likely to be most effective in areas such as the southern CBD, which features a lot of low to medium rise stock often dating back 50 years or so. On the other hand, it is likely to have very little impact on centres/areas that are (nearly) fully built up, including the CBD's financial core, North Sydney or Chatswood. These centres/areas feature buildings that are either approaching or already exceeding the limits of currently permissible FSRs. In the vast majority of cases, a simple raising of permissible FSRs by, say, 10 per cent would only marginally improve the economics of redevelopment, including demolition of income producing space.

Nonetheless, raising FSRs can assist in bringing development forward. Allowing a developer to build a larger amount of net lettable office space on a particular site can make a project financially feasible earlier than under existing rules by lifting the end value of the building. In other words, instead of having to wait for prices rise, a developer could proceed at a lower rent/higher yield. As an aside, increasing the feasibility of construction at lower rents could potentially act to limit rental growth by preventing vacancy rates from falling to very low levels.

Overall, site economics still require hurdle rates to be met, while there needs to be sufficient demand prior to proceeding with new development—construction in most cases is dependent on significant pre-commitments. Accordingly, actual development still depends on the stage of the office cycle, which means the raising of FSRs would be more effective in achieving longer term goals than in the short term requirements.

**The impact of increasing FSRs in new or emerging office centres**

Lifting FSRs alone is unlikely to be sufficient in laying the foundations for new office precincts—particularly in the short to medium term. The evolution of centres such as Norwest, Rhodes, Olympic Park and Macquarie Park into office precinct has taken 10 years or longer. All centres required at least one major 'seed' tenant to move to the area and all had a sufficient number of vacant or low yielding sites ready for construction within a clearly defined area. The centres also had good transport access (though some are better than others) for clients and staff, are in close proximity to the executive belt and have a competitive rental advantage compared with the CBD and major north shore markets. Olympic Park has recently developed into a back office location after the relocation of parts of the Commonwealth Bank.

In summary, a number of key factors need to be present for a new or emerging centre to evolve into a significant office precinct. In their absence, an increase in floor space ratio will have little impact if office users do not want to move to an area.