



Final Report

The financing of residential development in Australia

authored by

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ACRONYMS

AHURI	Australian Housing and Urban Research Institute Limited
APRA	Australian Prudential Regulation Authority
ASIC	Australian Securities and Investment Commission
CHOs	Community Housing Organisation
CHP	Community Housing Provider
GFC	Global Financial Crisis
GST	Goods and service Tax
GRV	Gross Realisable Value
JV	Joint Venture
IRR	Internal Rate of Return
LCR	Loan to Cost Ratio
LDCR	Loan to Development Cost Ratio
LVR	Loan to Value Ratio
MBA	Master Building Association
MOF	Multi Option Facility
NHSC	National Housing Supply Council
NPV	Net Present Value
NRAS	National Rental Affordability Scheme
NRV	Net Realisable Value
REITs	Real Estate Investment Trusts
SDV	Special Development Vehicle
SHA	State Housing Authority
SHI	Social Housing Initiative
SPVs	Special Purpose Vehicles
UDIA	Urban Development Institute of Australia

EXECUTIVE SUMMARY

A significant issue for both housing and urban policy is an adequate supply of housing to accommodate the current and projected demand for housing. The National Housing Supply Council has highlighted the serious shortfall between housing supply and demand from households (NHSC 2012). While there are various reasons for this undersupply, a key but often overlooked consideration is the financing of residential developments. In most cases, without financing (debt, equity or some combination), residential development is not possible (Miles et al. 2007).

Development is all about funding, it is a very capital intensive business so the first thing, the middle thing and the last thing and everywhere in between, every question, every thought of mine is about the impact of funding. (NSW Developer)

Despite the importance of finance to the supply of new housing in Australia there is a lack of understanding within the housing and urban policy community of how the financing of residential development works in Australia. But why is such an understanding important to housing and urban policy-makers? The development approval system is often considered to be the major barrier to housing supply when, in reality, the vast majority of schemes will not make it anywhere near the approval phase because they are either not financially feasible or, if they are, the developer cannot secure the necessary finance to undertake the project.

There are many policy decisions, particularly those that dictate what a developer can and cannot deliver on a development site, which will impact on the potential profitability of a development and therefore its chances of being built. There are also policy decisions that increase the potential risk of a development, for example uncertainty surrounding an approval process or potential infrastructure costs, that may mean a bank is unwilling to lend to that particular project due to the nature of that risk. Policy decisions that reduce risk and uncertainty can create an environment where developments are more likely to proceed and housing subsequently supplied.

This report is intended to provide an introduction to property finance and is designed for those with no or limited knowledge of this area. Its main aim is to provide policy-makers with a better understanding of how property finance decisions are made and how such decisions can affect housing supply.

Research questions

This study used primarily a qualitative approach, including a literature review and interviews with property developers and financiers operating across three states—Western Australia, New South Wales and Victoria—in a variety of development sectors—high density development, medium density infill development, greenfield development, and the affordable housing sector. Formal face-to-face interviews were supplemented with informal discussions with key industry players and industry groups. Grey literature was also reviewed to provide an assessment of how access to finance has changed over the last five years. Available data on bank lending and household borrowing were analysed to provide context. In addition, a review of listed company annual reports provided information on company structure, performance and access to finance.

This research addressed five key questions.

Research Question 1: How important is property finance in delivering new housing supply?

Put simply, property finance for a developer is crucial, no matter what sector they operate within:

Everything we have done comes down to finance. How do we finance it, how do we de-risk it, and how do we ensure we can deliver the outcome? (WA Community housing Provider)

Development is all about risk and return; debt finance helps reduce risk for the developer and allows those without the upfront capital to undertake projects. It is also one of the main reasons why the number of active developers changes so much in the Australian housing supply landscape. This was particularly the case in the post GFC period. A very clear conclusion from the study is that for some developers, such as publicly listed A-REITs (Australian Real Estate Investment Trust), property finance is accessible and the issue of finance is not a key determinant of whether developments are undertaken. However, many small and medium-sized developers borrowing on a project specific basis are finding it very difficult to access finance and this has a direct impact on the ability of the development sector to deliver housing supply, particularly in the areas dominated by smaller scale developers such as the infill space.

Research Question 2: What are the sources of finance and how do financiers make decisions to lend to a variety of different residential development types and tenures?

The range of residential finance sources for Australian developers narrowed post-Global Financial Crisis (GFC) as many of the European banks involved with the Australian property market withdrew from Australia. As noted by Allen Consulting (2011) the availability of finance was constrained by fewer domestic banks, partly due to the withdrawal of regional banks, and the 'retreat of foreign banks'. Residential lending is now dominated by the 'big four' banks that now account for around 80 per cent of residential development lending (APRA 2013).

The report discussed how lenders make finance decisions but a common theme is that post GFC, financiers are focused on minimising risk by strategies such as:

- Reducing the proportion of debt finance available to any one project.
- Only lending to developers with an existing relationship to the financier.
- Lending into 'safe' development and tenure types with a proven sales record.
- Setting a series of covenants on such items as pre-sales which reduces the sales risk for the financier.

Research Question 3: How do changing economic conditions (e.g. post Global Financial Crisis) have a significant impact on the financing of residential developments?

The GFC had two major impacts on the financing of residential developments. Firstly, a number of alternative lending institutions such as European Banks (e.g. Royal Bank of Scotland) stopped lending to the Australian property sector thus reducing competition in the sector. The banks have also tightened their loan conditions which has had the impact of restricting development finance to a significant component of the Australian development sector. Pre-sales became essential which created problems for many developers and types of development. Access to finance was a major cause of the relatively low number of dwellings built in Australia since the GFC.

Research Question 4: Are there elements within a residential development scheme, for example innovative construction methods, a joint venture approach or the provision of affordable housing, which affect lending decisions?

Any element of a development project that increases risk to a financier is likely to be scrutinised by a provider of senior debt finance. The general position is that property development is an inherently risky activity already, without adding any additional elements of risk. For this reason, innovations are likely to come from smaller developers who are able to attract significant equity into projects or larger private companies who do not depend on project level finance. Joint ventures (JV) can attract a more positive approach from lenders as long as the JV partners can add value to the development process and the JV arrangements do not jeopardise the access of the lenders to their funds if there are any problems with the development project. Smaller apartment products continue to be problematic for lenders. However, innovation (such as new construction methods) are possible if:

- A developer can demonstrate a track record.
- The financier is confident that there is a market for a product.
- The project has a high probability of generating an acceptable level of profit.
- The project provides low risk to a financial institution.

Research Question 5: How do the actions of property finance stakeholders impact on government leverage objectives for the not-for-profit sector and major housing subsidy programs such as the National Rental Affordability Scheme (NRAS)?

The leverage opportunities available for the not-for-profit sector are reasonably modest, largely because of the need for lending institutions to treat the loans as cash flow loans, rather than loans against assets. The asset base of the sector is growing, offering increasing opportunities for leverage but is still small when compared to the public housing stock and the equivalent sector in the UK, for example. Continued growth in the sector will make it easier for community housing organisations to access finance and expand the social housing stock. Institutional funding of the sector at scale would accelerate such growth. At present there are relatively limited opportunities to generate significant cash flows from affordable housing projects because of the reasonably modest incomes of tenants. Subsidy programs such as NRAS provide fewer concerns for lenders, although the time required for the lenders to understand new schemes can be significant.

Policy implications

Residential finance lending policies and strategies are defined and implemented by the lending institutions themselves. In this respect housing and urban policy-makers are largely powerless to directly influence such institutional policy. Banks and other financial institutions base their lending decisions on a defined organisational strategy and if a development project meets the risk to return assessment of the institution and fits with the overall strategy then the bank will lend to the developer. However, there are ways that policy-makers can influence the environment within which the development sector operates and therefore the potential risk profile of a development making lending to residential projects more attractive. In such a way policy-makers can influence funding strategies and potentially address finance as a blockage within the development process.

There are a number of policy implications arising from the research which are described below.

All developers are different

The study highlights the range of developers active in the Australian housing supply sector and the differences between developers in terms of accessing finance. The larger, publicly listed companies including those with a REIT structure seemed to have

few difficulties in securing finance. Major, national developers focusing on greenfield development have largely been unaffected by finance constraints, although there are exceptions due to a policy of banks reducing overall exposure to this type of development in specific locations. In contrast, smaller developers working on smaller scale projects, often of an infill nature requiring project specific funding, continue to experience very challenging conditions particularly if they don't have an exceptional track record.

This is important from a policy perspective because different types of developers will respond differently to a range of policy settings. For example, a policy making the purchase of new apartments exempt from stamp duty may be positive for a smaller scale, infill type developer who may see demand rise but may have a negative impact on a land developer. If policy-makers want to stimulate housing supply in a particular housing sector, then they need to be aware of the type of developer operating in that space and introduce policies that will have the maximum impact on that particular type or scale of developer.

Understanding development feasibility

Policy-makers need to understand just how their decisions affect residential lending through potential development returns and the perceived development risk. Section 3.2 of this report explains how development feasibility is calculated. This stage of the development process determines whether a development scheme is potentially profitable, if it is not then the scheme will get little further than a spreadsheet let alone reach the development approval stage. If the developer does consider the scheme potentially profitable they then have to persuade the bank to make the funds available. The bank will also look closely at the potential scheme profitability but also the level of risk involved. If the risk is considered too high, the lender may refuse to lend or impose loan covenants which may not work for the developer.

Anything that reduces uncertainty within the development process will have a positive impact on the way a lender assesses a development project. Decisions that make development more profitable will also have a positive impact on the chances of that development going ahead. By creating the conditions for profitable, low risk development, policy-makers are increasing the potential for housing supply. Any decision that adds to uncertainty, costs or potentially reduces revenue will have the opposite effect. Policy-makers therefore need to be aware how their decisions can affect potential revenues, cost, risk and profitability within a development.

From the developer's perspective, strategic planning decisions should take into account development viability and ensure that policies that will make development unprofitable, for example density restrictions or imposing minimum heights in low value areas, are avoided. If policy-makers are aware of how developers make decisions, then they can help deliver plans that are likely to maximise housing supply. The greater the chances of profitable development, the lower the risk and the greater the probability of banks being willing to lend on development projects.

Impact of funding constraints on urban policy

Post GFC, the major supply constraints generated by a lack of access to finance has been in the area of infill development, with many smaller developers operating in the lower land value sections of the city and providing dwellings at the more affordable end of the scale. Many of these 'developers' have returned to their other occupations because they are now unable to access finance. These small in-fill developers often have lower profit margins and often use family labour chains to reduce construction costs. As a result they are able to deliver affordable housing opportunities. A second

impact has been the increased focus on pre-sales, especially for pre-sales with a larger deposit. This has restricted access for first home buyers seeking an affordable product in the new dwelling market. It is likely that these two trends acting together have reduced the access of moderate income households to the new dwelling market, outside the traditional greenfield development opportunity.

The importance of residential finance is likely to increase over time as strategic policy focuses on infill dwelling supply and the traditional greenfield development dominated by the separate house becomes a smaller component of total new dwellings built in Australia. Traditional greenfield developments are constructed in stages and do not require the level of construction finance required for apartments for example. Peak debt exposure for a 100-unit apartment complex is significantly higher than for a 100-unit lot development.

Policy-makers therefore, as explained above, need to create the conditions that enable developers to deliver profitable, low risk development. If the conditions for small and medium scale infill development are not right (and obviously the state of the market is another crucial component) then the profitability of such development continues to be marginal and high risk therefore unattractive to lending institutions. To encourage the (re)entry to the sector of many smaller developers vital in delivering the type of housing supply necessary to meet infill targets, conditions need to be right. This can be achieved through certainty in the development approval process; avoiding delays and unnecessary complications; ensuring equitable infrastructure charging and flexibility around issues such as parking requirements which can add significant costs to developments and render them unprofitable. Reducing risk and creating such an environment will make such lending more attractive to financial institutions.

De-risk schemes through joint ventures

Linked to the above, local and state government can aid developers where possible by creating joint ventures to help reduce potential development risk, again making a scheme more attractive to potential lenders. Joint ventures could be structured in a number of ways, and there are examples all over the country but particularly in Western Australia through the Department of Housing. Such joint ventures include the use of government-owned land, government guarantees to purchase unsold units, pre-sales to government and direct profit sharing partnerships. Such joint ventures can not only help government meet their housing targets and deliver a range of affordable housing options but can make developments that lenders may not previously have funded feasible. Innovation can work if there are the appropriate guarantees in place for the lending institution. Existing successes should be highlighted and held up as examples of what can be achieved with appropriate leadership.

The not-for-profit sector

There has been considerable work examining the potential for large scale institutional funding for the not-for-profit and private rental sectors. Work by Lawson and Lawson et al. (2010, 2012, 2013) and Milligan et al. (2013a) identify a number of ways in which institutional involvement in both sectors could be stimulated and deliver positive housing supply outcomes. Attracting institutional investment into the area of affordable housing would have numerous positive outcomes for both the development sector and end consumers. Any policy measures that facilitate such institutional involvement would be a significant step forward.

If there is a political will to drive an increase in new housing completions by the not-for-profit sector in Australia, then the sector will require significantly improved access to residential finance. Current completions by the sector in comparison to many other

OECD countries are limited and unlikely to change unless better financial mechanisms are developed (Lawson et al. 2010). Many community housing organisations are developing housing on a relatively small scale through leveraging their existing assets and cash flows. Obviously the more assets they have to leverage against, the more money they can borrow and the more units deliverable. This is a powerful argument for the transfer of state housing assets to the community housing sector who can then concentrate on growing the sector through efficient use of such assets leveraging the necessary finance for expansion.

Demonstrating the potential of alternative housing products

Alternative models of housing supply and ownership through community land trusts and shared equity schemes, for example, have the potential to deliver positive outcomes. One of the barriers to growth in this area is a reluctance of banks to lend money to alternative products. An important role of government is to demonstrate that such models are effective and can be low risk investment opportunities. The Department of Housing in Western Australia have their Keystart low deposit scheme and shared ownership home loan scheme. These schemes have been successful in helping thousands of low to moderate income individuals and families into home ownership. Lending to individuals who might not otherwise have been able to access the private market, the state government has demonstrated such lending is low risk and has positive social outcomes. There is a powerful argument for the adoption of similar programs elsewhere. The success of shared ownership schemes has demonstrated there is a market for such a product and the private sector should explore how they could develop similar schemes that would enable households access to market housing previously unavailable.

Involving the financial sector in planning reform

Given the key role of residential finance in delivering new housing supply identified in this research and the key current objective of planning reform in many states is to increase the supply of new housing, it is important to include the residential finance sector in planning reform consultations. There is not a lot of evidence that this has occurred to date in Australia. For example, what aspects of the planning system create the most uncertainty and therefore have a negative impact on risk? How can the system be made more certain to reduce the potential for delays and the associated cost impact on profitability? Reducing risk will not only lead to more positive lending decisions but might also have an impact on the loan covenants imposed on developers, again making development potentially more profitable.

Although policy-makers are powerless to influence the strategy and practices of financial institutions, the discussion above highlights how they can potentially increase housing supply through creating the conditions where finance is less of a barrier to housing delivery. Understanding how finance decisions are made and how developers make decisions is a vital step in creating the policy conditions that will have a positive impact on housing supply.

1 INTRODUCTION

Development is all about funding, it is a very capital intensive business so the first thing, the middle thing and the last thing and everywhere in between, every question, every thought of mine is about the impact of funding. (NSW Developer)

Finance is the most important part [of the development process] because without it you are stuffed. (WA Developer)

There are really only two key things I think when we are looking at a project; what is the market for the product and how is it going to be funded. (NSW Developer)

Everything we have done comes down to finance. How do we finance it, how do we de-risk it and how do we ensure we can deliver the outcome? (WA Community housing Provider)

These comments, collected during the field work for this project, highlight the importance of finance in delivering residential development in Australia. The vast majority of development involves debt funding. Developers lacking the funds and/or are unwilling to take the risk of development using their own capital seek loans from financial institutions to fund land purchase but, more often, the actual construction phase of the development. Interest is paid on the debt over the life of the loan and then the debt repaid when the project is sold. Revenue is only generated at project completion so without an initial source of funds there is no way to pay for the cost of construction. Therefore without access to finance development cannot proceed.

Despite the importance of finance to the supply of new housing in Australia, a review of recent policy reports suggests that there is a lack of understanding of how the financing of residential development works. The aim of this report is to help fill this gap. The report is designed to provide readers with a better understanding of the role of property finance in the development process and how the availability of finance plays a vital role in the delivery of housing.

Why is such an understanding so important to housing and urban policy-makers? The development approval system is often considered to be the major barrier to housing supply when, in reality, the vast majority of schemes will not make it anywhere near the approval phase because they are either not financially feasible or, if they are, the developer cannot secure the necessary finance to undertake the project.

There are many policy decisions, particularly those that dictate what a developer can and cannot deliver on a development site, which will impact on the potential profitability of a development and therefore its chances of being built. There are also policy decisions that increase the potential risk of a development, for example uncertainty surrounding an approval process or potential infrastructure costs, that may mean a bank is unwilling to lend to that particular project due to the nature of that risk. Therefore it is important to understand that various policy frameworks play a major part in determining first, whether a development is likely to be considered viable in the first instance and second, whether a lender is prepared to take on the risk of funding that project. Policy decisions that reduce risk and uncertainty create an environment where developments are more likely to proceed and housing subsequently supplied.

This report will highlight the importance of property finance to the residential development sector and how access to finance varies across the development sector. It also discusses development feasibility to help policy-makers understand how decisions can affect development profitability and the likelihood of development

proceeding. Property lending decisions are framed by a number of quantitative and qualitative processes but the basic decision is concentrated on the balance between risk and return. Risk is related to the overall market but also the characteristics of the individual developer including their nature, scale and track record. Certain types of development attract certain types of developer, for example, small scale infill projects attract small scale developers, and this report discusses how the availability of finance varies by developer type and organisational structure. Such an understanding is important in order to explain why certain types of supply, particularly important from a policy perspective, are more difficult to stimulate than others and often this is due to finance blockages.

This report is intended to provide an introduction to property finance and is designed for those with no or limited knowledge of this area. Its main aim is to provide policy-makers with a better understanding of how property finance decisions are made and how such decisions can affect housing supply.

1.1 Research methods

The project addresses five research questions:

Research Question 1: How important is property finance in delivering new housing supply?

Research Question 2: What are the sources of finance and how do financiers make decisions to lend to a variety of different residential development types and tenures?

Research Question 3: How do changing economic conditions (e.g. post Global Financial Crisis (GFC)) have a significant impact on the financing of residential developments?

Research Question 4: Are there elements within a residential development scheme, for example innovative construction methods, a joint venture approach or the provision of affordable housing, which affect lending decisions?

Research Question 5: How do the actions of property finance stakeholders impact on government leverage objectives for the not-for-profit sector and major housing subsidy programs such as the National Rental Affordability Scheme (NRAS)?

To answer these questions we collected data through interviews with property developers and financiers operating across three states—Western Australia, New South Wales and Victoria—in a variety of development sectors—high density development, medium density infill development, greenfield development, and the affordable housing sector. The original intention was to conduct 18 face-to-face interviews with 12 of these interviews being financiers and six developers. However, it quickly became apparent that there was far more diversity in the practices of developers when compared to financiers, so the balance was changed. Developers were also acutely aware of the practices of financiers and given the vast majority of lending is through the big four banks—Commonwealth, National Australia Bank (NAB), Westpac and ANZ.

As a consequence, we conducted the majority of interviews with property developers rather than financiers. In addition financiers, particularly those from the larger banks, were less willing to be interviewed about property lending practices due to commercial sensitivities. The lack of access to financiers is a limitation of the research but sufficient evidence was gathered from the development industry to draw conclusions about lending practices. However, the lack of financiers did affect the ability to address research question four in as much detail as we would have liked.

Individuals were interviewed between November 2012 and August 2013. A list of interviews conducted as part of the research is contained in Appendix 1. Individuals were typically very senior in their organisation, often a managing director, delivering an overview of the finance issues, or they worked in the day-to-day management of development projects dealing directly with financial institutions.

Interviews were semi-structured in nature covering a broad range of issues including:

- sources of, and access to, property finance
- project conditions imposed by lenders
- funding strategies
- position of finance in the development process
- finance and project innovations
- impact of the GFC on lending conditions and finance availability.

Formal face-to-face interviews were supplemented with informal discussions with key industry actors and industry groups such as the Urban Development Industry of Australia. Grey literature was also reviewed to provide an assessment of how access to finance has changed over the last five years. Available data on bank lending and household borrowing were also analysed to provide the context to the demand for property finance. In addition, a review of listed company annual reports provided information on company structure, performance and access to finance.

1.2 The report structure

The report is split into a number of chapters. After a brief review of the research methods we take a 'property finance 101' approach explaining the structure of the development industry and the basics of residential finance. We then examine the role of finance in development using a more complex framework in Chapter 3. A key role of this chapter is to show how the type and cost of finance can impact on project outcomes. Another important aim of this chapter is to examine the issue of pre-sales and their impact on project structure and cost.

Chapter 4 examines the current availability of finance before moving on to assess the impact of the GFC on the availability and terms of funding. The report then describes how the organisational characteristics of the developer have a major impact on the ability of that developer to secure funding. In Chapter 5 we use four case studies to analyse the role of finance within four very different types of development—high density development,¹ medium density infill development,² greenfield development, and affordable housing development. These case studies highlight how finance is not a 'one size fits all' product and policy-makers need to be aware how the availability of finance can vary dramatically by development sector and can have implications for the effectiveness of housing and planning policy.

¹ High density development refers to apartment buildings that are four or more floors high.

² Medium density development refers to diverse house forms like semi-detached row and terrace houses, town houses, villa houses as well low-rise walk up apartments up to three floors.

2 PRINCIPLES OF PROPERTY FINANCE

The objective of this chapter is to review literature on the financing of residential developments and to provide a basic framework for understanding residential property finance. In order to establish this framework, the chapter starts by providing a description of the range of residential property developers operating in Australia.

One key feature of the housing market is that demand for new housing, while connected to key demographic issues, is also inextricably linked to the level of economic activity—the business cycle, as well as interest rates. When economic activity is contracting, there is a 'knock on' effect with lower demand and confidence being transmitted to the residential property market. Residential property developers and financiers knowingly operate in this economic environment and pricing adjusts to meet demand and, at the same time, stimulates supply (Isaac et al. 2010).

Rather than evaluating economic demand and supply theory, this literature review focuses on the operation of the Australian residential development market and the role finance plays in that marketplace. The literature review covers five issues:

1. *Australian housing supply market*—details the size and importance of the Australian housing market alongside information on the stakeholders.
2. *Residential property developers*—presents information on the composition of the developers operating in the residential market.
3. *Residential property financiers*—identifies the different forms of debt offered by financiers alongside the past and current structure of the residential development lending market.
4. *Residential finance development risk*—explains the risks associated with financing residential property developments.
5. *Property finance measurements*—details common financial measures selected by lenders to assess the suitability of the residential property development. Examples are provided on the quantitative approaches.

2.1 Australian housing market

As at 30 June 2011, the Australian housing market had an estimated 9.29 million dwellings. This is an increase of 142 000 (1.6%) from June 2010. The National Housing Supply Council estimates this annual growth figure was below the level of underlying demand by approximately 13 000 dwellings. The considerable divergence of demand and supply has several contributing factors including financial barriers to additional housing supply (NHSC 2012).

The estimated imbalance between underlying demand and supply hides the structural changes occurring in the Australian residential property market. Overall, the traditional detached house is the main type of dwelling although multi-unit housing supply is growing rapidly in many states. Table 1 below shows the composition of the Australian housing market over the 10 years to 2011.

Table 1: Recent changes in Australian dwelling structure

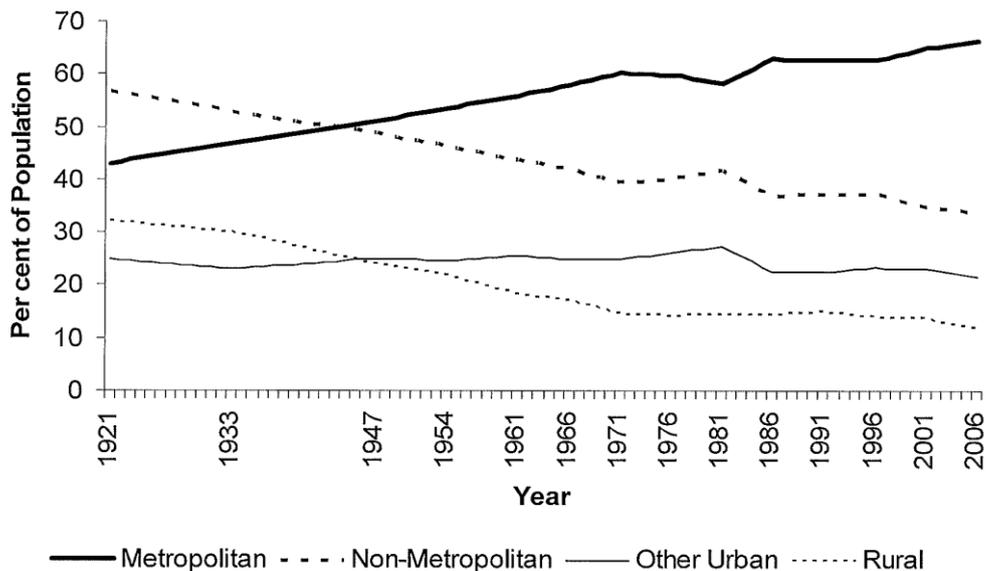
Types	2001	2011	Difference
Separate house	5,327,309	5,864,574	10.1%
Semi-detached, terrace house, townhouse etc.	632,176	765,980	21.2%
Flat, unit or apartment	923,139	1,056,237	14.4%

Source: ABS Census 2001, 2011

Table 1 illustrates that separate houses represent approximately 75 per cent of total Australian dwellings and is still the main focus of new supply over the past decade with 537 000 dwellings constructed compared to multi-unit housing of 266 000 dwellings. However, recent housing approval data shows a swing towards multi-unit housing dwellings. For example, in 2012, nearly 40 per cent of new housing development approvals were for multi-unit housing dwellings (Perkins 2013).

While a number of demand factors have influenced this push for higher density living, there has also been a desire by state governments to restrain urban sprawl in the major Australian cities and to better use existing infrastructure. This is evident within strategic planning documents which outline increased infill targets.

Figure 1: Changing spatial distribution of the Australian population



Source: Advisor Panel 2010

Figure 1 illustrates the change in the balance between metropolitan and non-metropolitan populations. This has created urban centres with approximately 64 per cent of the Australian population living in the capital cities and more than 80 per cent living within 50 kilometres of the coastline. This has led to a distinct concentration of urban population growth (Advisor Panel 2010, Randolph 2006).

This urban population growth, as well as continued real house price growth, has created visible changes in the types of metropolitan dwelling structures. This is evident with developers tapping a demand for smaller houses with increased housing diversity focused on community living. Around Australia, the trend is to smaller lot

sizes with higher density outcomes being encouraged by state governments (UDIA 2013).

In identifying the composition of the Australian housing market, specific locations within Australian capital cities can demonstrate distinct housing supply characteristics.

Table 2: Examples of Melbourne dwelling structures

Types	Port Melbourne (Melbourne Inner)		
	2001	2011	Difference
Separate house	979	681	-30.4%
Semi-detached, terrace house, townhouse etc.	2,491	2,644	6.1%
Flat, unit or apartment	1,340	3,191	138.1%

Types	Footscray (Melbourne Inner West)		
	2001	2011	Difference
Separate house	14,088	15,295	8.6%
Semi-detached, terrace house, townhouse etc.	2,155	3,622	68.1%
Flat, unit or apartment	4,179	5,913	41.5%

Types	Werribee (Melbourne Outer West)		
	2001	2011	Difference
Separate house	9,812	11,159	13.7%
Semi-detached, terrace house, townhouse etc.	373	1,023	174.3%
Flat, unit or apartment	985	1,023	3.9%

Source: ABS Census 2001, 2011

Table 2 illustrates the variation in metropolitan Melbourne's housing supply over the past 10 years. This example shows that those locations near the Melbourne CBD have experienced strong apartment supply, while with those further from the CBD, the focus has been on separate and townhouse dwellings. These new outer suburbs comprise a mix of housing to attract families and first time home buyers offering attractive affordable housing options.

The form of construction differs substantially across these dwelling types—low rise timber framed dwellings to high rise concrete apartments. Residential property developers and builders appear to concentrate on defined construction types (Burke 2012).

2.2 Residential property developers

Dalton et al. (2013) recently provided a full description of the house building industry which delivered much more detail than the brief summary below. We recommend those readers wanting more information on the structure and operation of the house building industry refer to the Dalton work.

One way to analyse the structure of the Australian housing market is to examine those organisations that dominate new dwelling supply. Table 3 below lists the top 20 organisations, ranked by their dwelling starts.

Table 3: Largest Australian homebuilders and residential developers 2011–12

	Organisations	Detached housing	Multi-unit housing	Total
1	Metricon Homes	2,821		2,821
2	Alcock/Brown-Neaves Group	2,602	134	2,736
3	BGC (Australia)	2,529	163	2,692
4	Hickory Group Pty Ltd		2,163	2,163
5	Simonds Group	1,917	122	2,039
6	Brookfield Multiplex		1,938	1,938
7	Henley Properties	1,698		1,698
8	Hotondo Homes	719	744	1,463
9	Porter Davis Homes	1,382		1,382
10	GJ Gardner Homes	1,171		1,171
11	Meriton Apartments		1,167	1,167
12	Pindan Pty Ltd	135	987	1,122
13	JWH Group	1,096		1,096
14	Mirvac Group	519	567	1,086
15	Dennis Family Homes	974		974
16	JG King Pty Ltd	924	250	1,174
17	Bloomer Constructions Pty Ltd	220	650	870
18	Eden Brae Homes Pty Ltd	759	108	867
19	Burbank Homes	632	234	866
20	Summit Homes Group	721	136	857
	Total	20,819	9,363	30,182

Source: HIA 2012b

Table 3 illustrates the distinct differences between Australia's leading dwelling providers. In this sector, often a third party has purchased the land and the volume house builder (contract housing, project builder) constructs the residential property to a specified mass-produced design. A large number of firms on the list are project builders but some complete 'speculative developments' through house and land packages or apartments for perspective purchases. However, 'speculative developments' are less speculative in nature post GFC due to the requirement for pre-sales (see below).

For those project builders offering house and land packages, residential finance primarily relates to land purchase, infrastructure and holding costs because those contracting the dwelling, (the purchaser), are financing the construction. The specialised multi-unit house builders are commonly separate organisations from the developer and specialise in high rise apartment developments. Their financing requirements in general, cover separately the land and construction stages (Wilkinson

et al. 2008). There are very different financing issues for separate houses and apartment buildings because with houses, contract builders receive progress payments and hence do not carry the same financing load. With apartment buildings, funds are not released to the developer until the building is completed.³

Predominately, the top 20 homebuilders and residential developers are private companies and appear to focus on defined residential property markets. For example, Metricon Homes' operation is largely along the Australian eastern seaboard, whereas the Alcock/Brown-Neaves Group operation is concentrated in Western Australia (HIA 2012b).

According to HIA (2012b), there were approximately 30 000 housing starts for the top 20 homebuilders and residential developers in 2011–12. This represented nearly 20 per cent of total housing supply, but given there are over 40 000 building companies (Allen Consulting 2011) this is a significant proportion. The number of building companies suggests that the market is highly segmented with the larger players delivering high volume and thousands of smaller companies delivering a handful of units per annum. Geography and capacity are major influences on a company's ability to deliver housing.

Residential developers can be categorised by project completion end value:

→ *Low value—less than \$3 million:*

The vast majority of developers fit into this category. Often those operating on low value projects are part-time residential developers with their primary income sourced outside the property development industry. Projects are completed on an individual basis, before the next project starts. Limited knowledge and time constraints can restrict these property developers to small scale residential subdivision work and medium density town houses.

→ *Medium value—between \$3 and \$20 million:*

Generally, small scale property development companies operate in the medium value range. Local knowledge and trade connections are essential parts of the residential property developer handbook. Each development is treated separately, with viability and funding options reviewed at defined stages. As a 'stand-alone' entity, project finance is sourced with lending criteria depending on the project, developer and market conditions.

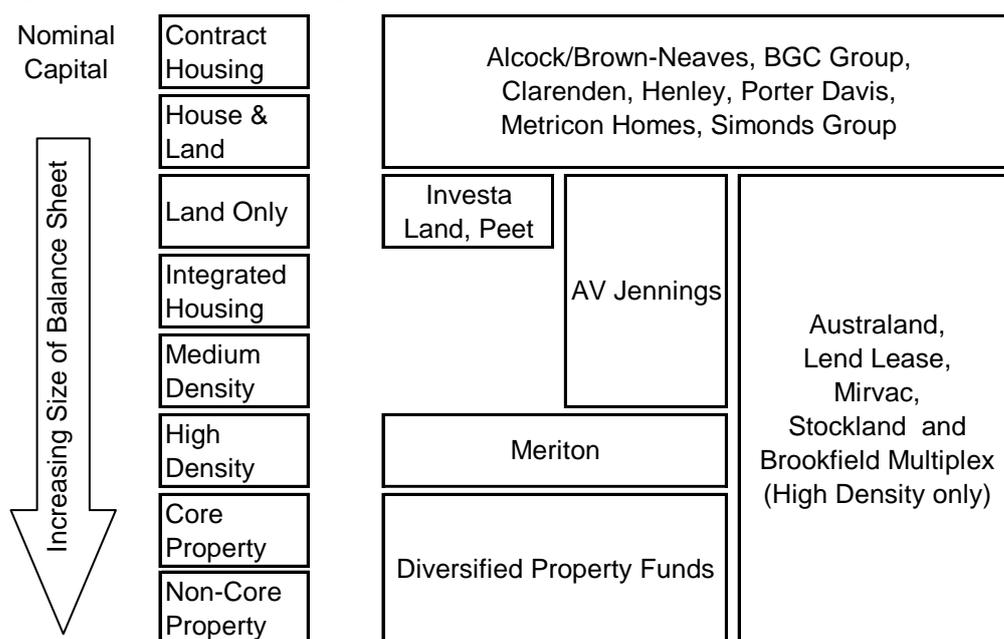
→ *High value—above \$20 million:*

Those large scale projects are generally managed by primarily local, but often national and more recently overseas, property development companies (being most evident in the Sydney and Melbourne CBD residential property markets). Joint ventures are common to lower the considerable specific property development risk. However, developers are typically reluctant to share profits with a third party, unless it is the way to secure a particular site or finance for a residential development (Wilkinson et al. 2008).

Several of the leading property development companies have a recognised presence throughout the Australian property industry, both residential and commercial. Figure 2 details leading Australian residential property developers.

³ Note that in some other countries progress payments are available for apartment developers.

Figure 2: Australian leading homebuilders and residential developers: December 2012



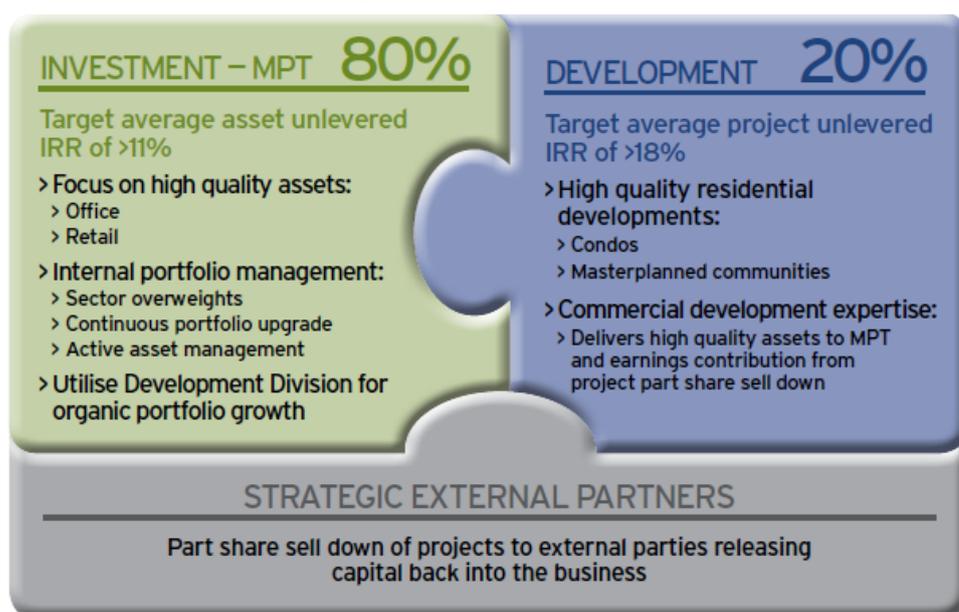
Note: Investa Land is part of the Investa Property Group, which has a large commercial property portfolio. Adapted: AVJennings 2013.

At the top of the ladder within Figure 2 are contract housing providers. Further down are the large property investment companies containing an extensive property development division, often providing specialist in-house services (e.g. acquisition, planning and construction management).

The structure of residential development companies appears to vary with those in a defined residential development market operating as private entities compared to large publicly listed companies where residential property development competes with alternative property sectors for funding (e.g. commercial and retailing). The differences generally relate to business operations and financial structures. Private entities access debt capital on required bases while large public company balance sheets play an important part in covering debt funding arrangements (see Section 4.2).

Generally, large public property companies own a portfolio of prime commercial properties. The structure of these companies (commonly unit trusts) permits them to have a diversified range of quality properties providing stable returns. To improve the performance, both commercial and residential development projects can add additional returns with limited financial risk. This is shown in Figure 3 below, which details the property strategy as at March 2012 for the AU\$6.7 billion Mirvac Group, a publically listed Australian real estate investment trust, commonly referred to as an A-REIT.

Figure 3: Mirvac Group strategy: March 2012



Source: Mirvac Group 2012

Figure 3 describes the balance between investment and development as well as the performance hurdles for the Investment and Development arms of the Mirvac Group. While the high quality commercial investment properties provide the basis for property company returns, the residential projects undertaken by the Mirvac Group development arm can offer higher returns and portfolio diversification.

2.3 Residential property financiers

Finance is a critical resource in the process of residential property development and an important element of the development feasibility assessment (see Section 3.2). The cost of finance depends on several factors, foremost among these is the level of risk that the property developer and lender are prepared to accept. Invariably this will depend on the level of security offered by the project and property developer (Brueggeman & Fisher 2008).

The majority of residential property developments are undertaken using funding from an external third party source or sources. Financiers provide the difference between the developer's available equity and the total cost of the project including all associated expenses. For example, in the most simplistic terms, if the developer had \$1 million of their own money to invest in the project and the total cost to develop that project was \$3 million, then that developer would need to seek finance to cover the \$2 million gap. Financing is complex due to illiquidity, that is, funds are tied up in the development until it is sold, long development time spans meaning loans often need to be re-financed when they come to the end of their initial term and the large costs associated with residential developments (Wilkinson et al. 2008).

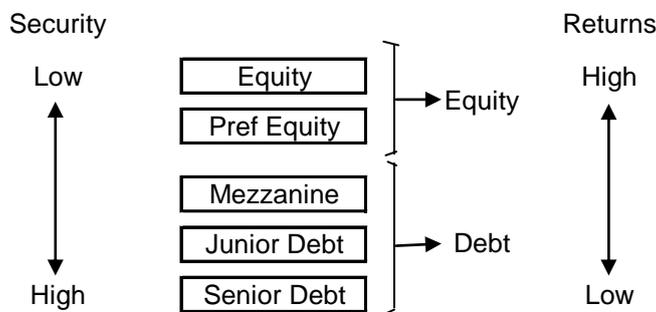
There are two major stages in the development process that require funding—land purchase and the construction phase. These stages can be funded by a combination of equity and debt. Equity and debt reflect varying risks and, therefore, command varying investment returns (Brueggeman & Fisher 2008; Bryant 2012; Wilkinson et al. 2008).

By using debt rather than equity finance, the developer has a number of advantages, but also some disadvantages. The lender requires repayment of the debt and the

interest that was negotiated as part of the loan, but once the debt is repaid they have no further involvement in the project. The disadvantage is that if a developer is unable to pay back the loan, the funder may assume control of the project and do what they can to recover their funds as soon as possible, even if the longer term prospects for the project are good. An equity investor, on the other hand, has a stake in making sure that the project is profitable because they will get their money back as well as a share of the development profits. Hence, they are unlikely to prematurely close down a potentially successful project. On the other hand, because they do have a share of the project they may want a say in key project decisions, hence undermining the independence of the developer.

When the property cycle is at its peak and banks have a strategy to maximise their exposure due to the perceived low risk associated with development, it has been possible to get 100 per cent debt finance, but this situation is rare. For example, currently the maximum debt finance level available from the major banks is about 70 per cent.

Figure 4: Residential development finance



Source: Adapted: Bryant 2012

Figure 4 details the funding sources for specific residential developments and projects may use one or more of these tranches. The tranches can be grouped into equity and debt sectors. The equity component is generally the cash consideration provided by the developer. The level of equity return is determined by the financial success of the development and is normally the last payment after all debt tranches are repaid (Wilkinson et al. 2008). When a developer provides equity to a project it increases their level of risk but also increases the potential return by reducing interest costs.

Typically the debt tranches are in two parts, senior debt, which is the traditional form of funding, is provided by the major banks and their subsidiaries. The gap between senior debt, available equity and total development costs is covered by mezzanine debt which is most likely sourced from regional and foreign banks, mezzanine funds, investment banks and private equity. Typically, the credit risk appetite of lenders depends on a financial matrix alongside information on the property developer's track record, the development itself, market conditions and overall funding availability (Bryant 2012).

The mezzanine element of the debt tranches carries a higher default risk than senior debt because senior debt, as the term implies, has the first call on any revenue generated by the project. Therefore it is charged at a higher interest rate which, depending on capital market conditions, is usually 5–10 per cent higher than the rate of senior debt and is often available for a shorter time period. The higher interest rate reflects the level of risk associated with the possible project default and the potential inability of the property developer to pay the interest and return the capital. Given the higher cost of this funding, developers want to minimise their exposure to mezzanine

finance so these are often short term loans necessary to 'plug a gap' in project finances.

For large scale residential property developments (major high rise apartment complexes etc.) finance can be beyond an individual bank's lending limits. Capital market conditions generally dictate these limits, with finance over \$100 million normally requiring banks to partner in order to provide the debt funding, thereby spreading the risk. These syndicated project loans provide the funding opportunity for major residential property developments.

These large loans consisting of a group of financiers (banks) have a 'lead' bank, usually an established property lending bank with the necessary in-house expertise, which will arrange the syndicate. It is usual for the lead bank to have the final responsibility for making decisions on behalf of the syndicate during the loan period. Each bank shares, in proportion, the risk of the development depending on their initial considerations. This can lead to layers of requirements defined by the individual banks that can further complicate the financing arrangements (Wilkinson et al. 2008).

2.4 Residential finance development risk

There are a number of financial risks that can occur over the life of the property development project which includes pre-contract, building contract and post construction phases. Financial risks typically occur in the building contract and post construction phases and include:

1. interest rate fluctuations
2. project over-runs
3. withdrawals of support by lenders
4. incorrect forecasting of future values or cash flows.

Source: Havard 2008

The management of interest rates is important and can be achieved at the beginning of the loan with a variety of techniques that can include a fixed interest rate and a collar approach which provides a maximum and minimum level on the interest rates paid over the term of the loan. The attractiveness of the interest rate and the availability of funds need be considered, depending in part on the current financial environment (Ratcliffe et al. 2009).

In managing interest rates, market conditions beyond the control of the developer can impact on the project. In many cases, these risks are magnified with the level of debt and timing issues. Risk mitigation can be achieved with sound assumptions within project appraisal at the initial finance stage of the residential property development process (Havard 2008).

Likewise, project overruns can impact twice on the residential property developer. First, it affects cash flow and second, it increases costs. Procurement options can provide protection for the developer as liabilities for delays can be shifted to the building contractor. Property financiers do pay particular attention to the building contract as a way to mitigate the development risk and their own financial risk (Wilkinson et al. 2008).

2.5 Property finance terms and measurements

The section introduces some quantitative measures used in residential property finance that have yet to be defined. For residential property financiers, alongside descriptive measurements (e.g. a developer's track record, past relationship with the

bank, etc.), detailed financial appraisal is a key aspect of assessing the viability of a residential development and minimising risk.

When assessing the risk of a loan, lenders will use a number of measures designed to quantify that risk through assessing the capacity of the borrower to service the loan. The most commonly understood measure, because it also applies to home purchase, is the loan to value ratio (LVR). This is the percentage of end development value that a lender is prepared to advance to a developer. The higher the loan to value ratio, the higher the risk to the lender. For example, if a project has an end value of \$10 million, and the bank has an LVR limit of 80 per cent, then the maximum that will be lent is \$8 million. This ratio offers protection against projects where end revenue outcomes are well below those expected. During the GFC, many lenders lowered their LVR from 100 per cent to 70 per cent, this limited debt in the example to \$7 million so requiring an additional \$1 million equity, if the project has an end value of \$10 million, to make the project work.

In order to assess an LVR the lender needs to calculate the potential revenue from a development. This is achieved through determining the gross realisable value (GVR) and net realisable value (NVR). The GVR is the gross revenue from sales that a development could achieve. For example, if you have 20 units to sell at \$500 000 each, then your GRV would be \$10 million. Importantly, where applicable, goods and service tax (GST) is deducted to achieve the GRV. NVR is the net value of sales, less the amount of GST (if applicable) paid on sales, less any selling costs (commissions paid to real estate agents for example). If you have 20 units to sell at \$500 000 each, then your GRV would be \$10 million, and if selling costs are 5 per cent, then the NRV is \$9.5 million.

Another way to quantify just how much a bank is prepared to lend is through the loan to cost ratio (LCR). This is the percentage of the development building cost (excluding developer profit) that a lender is prepared to advance to a developer. For example, if a project has an end value of \$10 million, a building cost of \$9 million and has an LCR limit of 80 per cent, then the maximum that will be lent is \$7.2 million. This ratio protects the lender from an increase in building costs. If the LCR limit was lowered to 70 per cent, then the maximum loan would be \$6.3 million on the example above.

When banks and developers are assessing the viability of development they will calculate the potential return from that development. There are a number of measures of return (also discussed in Section 3.2) which include the Internal Rate of Return (IRR), Equity IRR and developer's margin. The IRR is the discount rate that produces a net present value (NPV) of zero. If the IRR is above the developer's target rate of return, that is, the return the developer requires to compensate for the risk of undertaking the project, that project would be regarded as profitable. The IRR takes into consideration assumptions on the effect of time, incomes, costs, end development value and a discount rate.

The equity IRR is used when a project is funded using a mix of equity and debt and the investor would like to estimate the rate of return on equity, after debt costs and payments are removed. Hence equity IRR is essentially the leveraged version of the project IRR. If the project is 100 per cent debt funded, then no equity IRR will exist. Where the project IRR is greater than the cost of finance, the equity IRR will exceed the project IRR. Where the project IRR is less than the cost of finance, the equity IRR will be less than the project IRR.

Other factors taken into account when assessing the potential of a development include the structure of the development company and the type of loan facility itself. Special purpose vehicles (SPVs) are commonly used by developers to separate

projects in separate entities, providing a logical structure for legal and financial purposes. This 'stand-alone' entity provides the structure for agreements and contracts between lenders, developers and other interested parties and is the arrangement for financial payments. In contrast to the SPV is the multi option facility (MOF) which consists of an overall debt limit that may be made up of a number of assets. The MOF offers a degree of flexibility above that received for a single asset debt facility. The benefit of having an MOF is there is no need to renegotiate the contract each time you sell/acquire an asset. This provides major property organisations with access to an investment and development portfolio across a range of assets and a range of risk profiles (Rowland 2010).

3 RESIDENTIAL PROPERTY FINANCE—PROCESS, PROFIT AND PRE-SALES

This chapter explores the importance of property finance within the residential development process. It discusses how finance fits into the process and how it affects development profitability. For example, the cost of finance and other loan covenants can have an impact on project viability and a project with marginal viability on traditional lending terms could be pushed into the non-viable category by an increase in the interest rate required by the lender. The chapter also examines the issue of pre-sales which were identified as one of the key blockages to certain types of development in the current market.

This chapter starts by examining the place of finance in the development process before examining the current availability of finance. It then goes on to explore how finance and lending covenants can affect project viability through the use of feasibility modelling.

3.1 Finance and the development process

Gurran et al. (2012), identify the major elements of the housing delivery system in Australia (see Figure 5 below). While there has been a lot of public comment about the barriers generated by urban planning regulation on housing supply, recent industry reports (see Chapter 4 for examples) identify the difficulties of accessing residential finance as the major barrier to dwelling production in Australia. In the words of one of the developers interviewed in the study, project funding is the *critical* issue in project delivery.

Development is all about funding, it is a very capital intensive business so the first thing, the middle thing and the last thing and everywhere in between, every question, every thought of mine is about the impact of funding. So it is a major impact on the business. There is really only two key things I think when we are looking at a project: What is the market for the product and how is it going to be funded? Those two things never really leave us, the design and the funding implications, design in the market and funding implications because whether you are Mirvac [large national developer] or Morgate [small local developer], the ability to fund projects is critical to the success of the project. (NSW Developer)

Finance forms the critical stage in the development process because without it the project can go no further; the developer cannot purchase the land or secure the funds necessary to pay for construction and all other associated expenses. A developer must therefore be confident that a source of funds will be available before expending too much of their own money on assessing a development project or securing a lengthy and costly development approval.

The planning system itself can create conditions that are not conducive to profitable development and can add an element of uncertainty and risk to the development process. This uncertainty may be the deciding factor in determining whether a bank decides to lend on a development scheme. The development approval process is considered to be a major blockage for schemes that have gone through the initial stages of the development process, that is, have been considered feasible and the developer is proceeding to the construction phase. However, the vast majority of developments will not make it to that stage because they are not considered feasible or the developer cannot secure finance. So, while the planning system is an easy and visible target to blame for housing supply blockages, the main factors preventing

supply come much earlier in the form of a lack of return for the given risk or a bank's unwillingness to lend to a particular developer or on a particular scheme.

Figure 5: The Australian housing supply system—Factors impacting on new supply



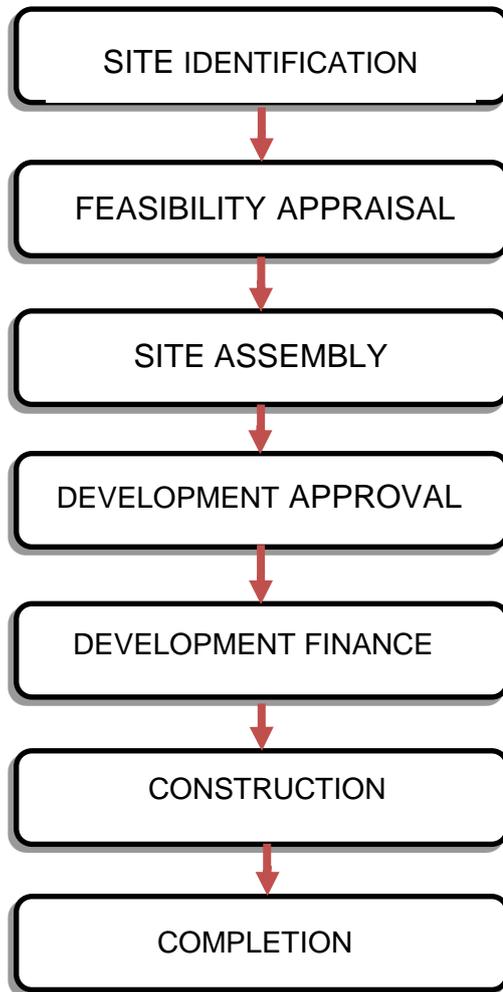
Source: Gurran N et al. 2012

Finance in a development scheme has traditionally been positioned towards the middle of what is traditionally assumed to be a fairly linear development process (Havard 2008; Wilkinson et al. 2008). Figure 6 below shows the stages in a typical linear development process (Rowley & Phibbs 2012) illustrating a situation where the land is purchased and development approvals obtained before finance is secured from a lender. Within such a process land would be purchased using the developer's own equity, through a land syndicate, a joint venture, or perhaps through an option (see Section 5.1). In each case, the process effectively assumes that finance is taken as a given because the time and money spent getting through the design and development approval process would be significant and developers would not take on that risk without a guarantee that funding would be available when required. Therefore these two development processes assume a stable and secure flow of finance, perhaps through a corporate facility or line of credit, for example. This brings us to an important distinction between different types of developers and the availability of credit (dealt with in more detail in Section 4.2).

Organisational structure has a huge impact on the developer's ability to access finance with the larger, national developers relying on corporate facilities rather than project specific finance secured on the project itself. With such a facility, finance is more secure and accessible, therefore the traditional position of finance in the process is maintained. However, for many developers without a largely guaranteed source of funds, the process is rather different from that illustrated in Figure 6. Figure 7 provides a more complex illustration of the role finance plays affecting numerous stages of the process. Without some certainty in the availability and cost of finance it is very difficult for a developer to proceed past initial project assessment. Finance will not only influence how and when the developer secures access to the site but will also affect

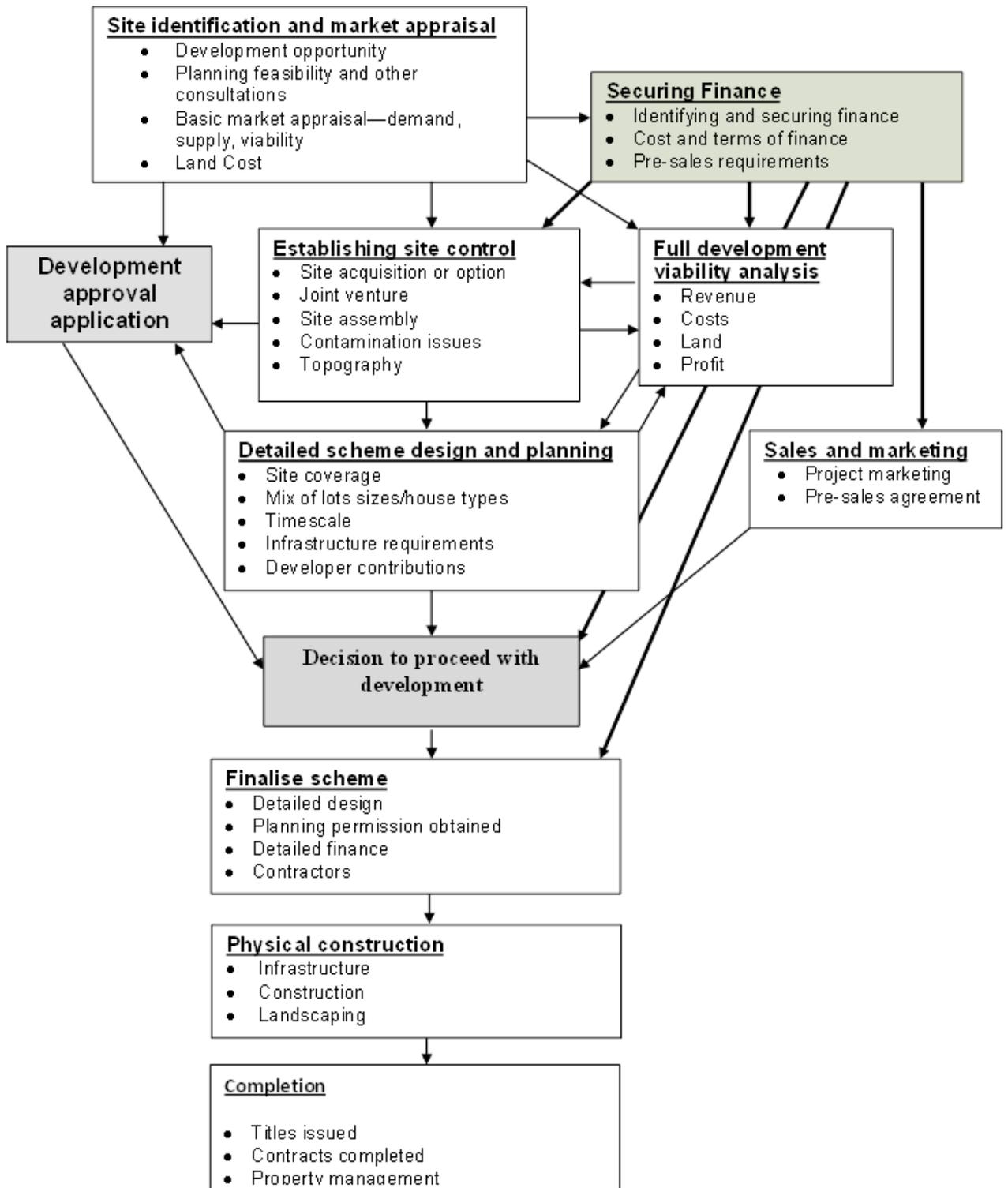
viability and determine when the project must be marketed if pre-sales are a requirement.

Figure 6: Standard linear development process



Source: Rowley and Phibbs 2012

Figure 7: The role of finance in the development process



Source: Authors

3.1.1 Site acquisition

Interviews conducted during the research suggest that site acquisition is far more complex than standard development textbooks report. There are a number of ways developers will access sites for development. These include:

- Purchasing the land with equity, debt or some combination.
- Securing an option over the land.
- Undertaking a joint venture with the landowner.
- Land syndication.

Traditionally land would be purchased up front, ideally using the developer's own equity to avoid finance costs payable over the life of the development, which could be many years. The trouble with using the developer's equity is that equity is tied up in that development site until the project is completed and sold. Some developers will purchase land upfront and try to generate profits through the uplift in value resulting from development approval and the land can then be used as the security for the finance:

At the start of the project, the developer will hold a preliminary meeting with the Bank of Queensland re the finance potential for the site. Recent example, they [a developer] purchased a site for \$500 000. After the DA was approved the site was valued at \$1 million. The bank were happy to lend 50 per cent of the new valuation so they [the developer] got their \$500 000 'back'. So they [the developer] look for sites with planning uplift so they can maximise their leverage. (Development Financier)

Developers who purchase land upfront, secure the development approval and then approach banks for finance risk finding that finance is not available. In such a case they will need to dispose of the land which may result in a significant loss depending on the state of the market and whether the approval holds any value, that is, is attractive to other developers. Other developers may base their entire business on purchasing land, securing development approval and then on-selling land. Such organisations make their money through knowing how to navigate the development approval process.

If there is a gap between the land cost and available developer equity then the developer will either seek debt funding; source equity from other investors, high net wealth individuals for example, or perhaps establish a land syndicate where investors are offered the opportunity to share in land ownership and development (see Section 5.1 for more details).

Securing an option over the land is another possibility where an agreement is reached with the landowner enabling land purchase to be negotiated subject to development approval; the eventual price dependent on a number of factors, for example, the profitability of the development. However, an option may prove difficult when the landowner is in a strong bargaining position, but such a structure does reduce risk for the developer:

Smaller developers will often just get the DA approved through an option and then just hope they can get finance. Often this proves difficult and they have to sell the site, often with little profit. (Development Financier)

The preferred option for many developers in a period where finance is tight is to establish a joint venture with a landowner where there might be a profit sharing arrangement in return for the landowner contributing the land. This removes the cost

of purchasing land upfront and the holding costs associated with land (land tax, opportunity cost of capital etc.), which are considerable according to the Residential Development Council and Urban Development Institute of Australia (UDIA) (see Gurran et al. 2009). Not only do joint ventures allow the developer to share the costs of the development approval process they also reduce risk significantly if approval is not granted or the scheme turns out not to be profitable by the time approval is finalised.

You try to as much as possible have joint ventures with landowners because holding on to big slabs of land is very difficult because some of it you won't develop for 20 years and it just sits on your balance sheet. If they [landowners] want the value for the land that they thought they might have in 2005 they have to start sharing the risk and I don't think you'll see people buying 20 years supply of land that you might have seen in other generations. (Greenfield developer, WA)

A joint venture partner brings the site to us and the site is how they buy their way in. We don't buy the site off the JV partner. The site is valued and then we would tip in, depending upon the size of the site but a ballpark figure, 50 per cent of project costs to get everything started, and during that time we will go to the banks and the market and one of them [banks] will put a figure to us which looks attractive and we can make it work. (High density developer, WA)

One of the main advantages of a joint venture is removing the need for upfront equity which is very expensive and means that equity can then be spread over a number of projects.

We also do projects where we do buy the land and we will talk to the bank at that stage, but the majority of our developments are done with joint venture partners which allow us to carry on a number of projects at any one time. (High density developer, WA)

Joint ventures with state and local government are also a way of spreading risk and allowing access to land that may not otherwise be available. (Rowley & Phibbs 2012, Section 4.2.6)

The position of finance in the development process therefore depends largely on the structure of the land deal. Joint ventures often allow finance to be secured at a later date with the traditional equity land purchase less viable post GFC given a reduction in the availability of finance (see Chapter 4). The risk of purchasing land, being unable to finance and then being left with an asset that cannot be sold is too great for smaller developers:

Pre GFC we would find the site, buy it, and then find the finance, but now we never buy anything without having the finance in place. (Infill developer, WA)

3.2 Impact of finance on development viability

There have been a number of studies examining the impact of various variables on development viability such as construction costs (NHSC 2010, UDIA 2011), development contributions (Gurran et al. 2009), and delays in planning approval (Rowley & Phibbs 2012), but nothing on the impact of finance. Although finance does not have as significant an impact on overall feasibility as, for example, government taxes, levies and compliance costs, which Gurran et al. (2009) estimated to account for around a third of the cost of a new house and land package, changes to the cost of debt could mean the difference between a profitable project and one that does not proceed. Of course, the vast majority of projects require debt funding to get off the ground so this analysis assumes that finance is available in the first place, but the

cost, and therefore the impact, of finance varies depending on the various loan covenants imposed.

Development feasibility is typically assessed via feasibility models such as Estatemaster's Development Feasibility software. Variables are entered into the model which include information on costs and revenues and finance details such as the level of equity, structure and term of the loan and interest rate. Such models then provide an outcome in terms of a number of development profitability measures, including developer's profit, internal rate of return and return on equity.

Table 4 below provides a simple example describing the feasibility assessment of a medium sized apartment development with a development period of around three years from site acquisition, through development approval, construction and then disposal. The table begins with the total revenue predicted from the sale of the apartments, less selling and marketing costs and GST payable on revenue. In this simple example, the developer uses their own equity (\$12.5 million) to purchase the land therefore minimising the amount of debt funding required upfront. The cost of actually constructing the development is \$32 million and added to those physical construction costs are professional fees (architect, quantity surveyor, planning consultants, etc.) and statutory charges such as a development approval lodgement fee and developer contributions (depending upon the state). Most projects will include a contingency sum to cover any unexpected costs and there will also be land holding costs consisting of land tax and perhaps strata levies for unsold apartments.

Finally there is the cost of finance. In this example it is assumed the developer has already approached the bank and the bank has agreed to provide the developer access to a line of credit, although there is an initial loan establishment fee of \$500 000 and additional line fees of \$133 000, at an interest rate of 6 per cent. Funds will be drawn down from the loan when required to fund various aspects of the development. In this case the peak debt exposure is \$39.3 million with total interest expenses of \$2.5 million. As soon as the revenue starts to come in from sales, the developer will use the funds to pay down the debt until it is eventually paid off and any remaining revenues are taken as profit. In this example the difference between the total revenue and total costs is \$13.2 million which is the net development profit.

Table 4: Development feasibility outcome

Total revenue (after GST paid)		\$63,850,651
Construction costs	\$32,036,736	
Land costs	\$12,500,000	
Pre-sales commissions	\$654,432	
Project contingency	\$1,784,828	
Professional and statutory fees	\$3,766,500	
Land holding costs	\$448,733	
Interest expenses	\$2,547,798	
Finance charges (inc. fees)	\$633,334	
Total costs (after GST reclaimed)		\$50,584,385
Net development profit		\$13,266,267
Development margin (profit/risk margin)		24.2%
Equity IRR		26.3%
Project IRR		14.7%

Source: Feasibility calculated using Estatemaster Development Feasibility software.

Development profitability can be measured in a number of ways. The most simplistic is the development margin which is net development profit as a percentage of total development costs. Many developers would use this as an early indicator of whether a project is likely to be feasible and, depending on the state of the market, the development sector and risk involved in the project, an acceptable minimum margin may range from 10 per cent to 25 per cent. In Table 4 the development margin is 24 per cent, but this needs to be considered alongside the risk taken by the developer; in this project the main risk being the large equity contribution for land purchase.

The second measure of profitability is the return the developer can generate from the equity they invest in the project. The equity Internal Rate of Return (IRR) shows the annualised return on the \$12.5 million investment given the cash flows from the development. The required return on equity will depend upon the individual developer and the potential return from other investments of comparable risk. The developer would need to decide whether 26 per cent is acceptable given alternative investment opportunities.

The IRR on a project is a third measure of profitability which allows a comparison of overall project returns with the developer's target rate of return, which again is based on the requirements of the individual developer and the market/property specific risks of the development. If the developer's project target rate of return was 14 per cent and target equity IRR, say, 25 per cent, then this would be considered a potentially viable development opportunity and would proceed to the next phase of the development process.

Anything that affects the revenue or costs of development will affect the development profit outcomes. Therefore policy decisions that affect what a developer can and cannot build will impact directly upon the potential revenue and profit. Policies on zoning, densities, height, infrastructure and developer contributions, for example, will all affect development profitability and are key determinants of whether a project will proceed to completion. Finance is an element of costs that can have a significant

impact on development profitability. The analysis below can equally be applied to assess the impact on profit of other variables.

Table 5 below demonstrates how a higher interest rate results in a lower return on all measures of profitability because overall net profits fall due to rising development costs. The table is based on the development scenario discussed above and the only variable altered is the interest rate of the loan, ranging from 6 per cent through to 10 per cent. With an interest rate on the loan of 8 per cent, finance costs constitute 7 per cent of total development costs or almost \$3.5 million. An increase of 2 per cent in the interest rate on the loan will affect total development costs through increasing the interest charged. In this case 2 per cent equates to roughly \$1 million in additional interest which has a significant impact on the developer's margin. The lower the interest rate charged on the loan the greater the development profitability, if all other variables are held constant. In this particular scenario any interest rate on the loan above 6 per cent would mean that the project is not viable if the required project IRR is 14.5 per cent or equity IRR 26 per cent.

Table 5: Impact of lending rates on development profitability

Interest rate	Developer purchases land with equity, remaining costs debt funded		
	6%	8%	10%
Total revenue (after GST)	\$63,850,651	\$63,850,651	\$63,850,651
Total development costs	\$50,584,385	\$51,479,342	\$52,398,292
Peak debt exposure	\$39,363,470	\$40,184,436	\$41,026,483
Interest charged	\$2,547,798	\$3,442,755	\$4,361,705
Finance costs as % of development costs	5%	7%	8%
Loan to value ratio*	52.6%	53.7%	54.8%
Equity IRR	26.3%	24.9%	23.5%
Development margin	24.2%	22.2%	20.2%
Project IRR	14.7%	13.7%	12.8%

Note: *Loan to Value ratio is the Peak Equity/Debt Exposure divided by Total Sales Revenue on the senior debt.

In Table 6 below the analysis models four different loan structures with varying loan to value ratios dependent on the level of equity the developer is able to invest. In the first example (a) the developer only has \$2 million in equity which means that the remaining costs have to be debt funded. Increased debt has a negative impact on the development margin and project IRR because of the increased cost of finance. However, the developer's return on equity increases significantly. If this measure of return is the one upon which the developer is basing their development strategy then the project may well proceed if the bank is willing to lend on those terms.

If the developer contributed \$6 million in equity, example (b), this will increase the project IRR and developer margin over example (a) by reducing the proportion of total costs allocated to finance but the return on equity will fall, although will remain much higher than if they developer contributed the full \$12.5 million land value as per Table 4.

If the bank were only prepared to accept a loan to value ratio of around 50 per cent, and the developer only had \$6 million equity to contribute, example (c), they may be

forced to plug the gap with mezzanine finance which is considerably more expensive. In this case finance rises to 12 per cent of total costs and the project IRR drops to 10 per cent although the equity IRR remains above 30 per cent.

Finally example (d) presents a scenario where a joint venture between the landowner and developer sees the landowner contributing the land and developer injecting \$6 million in equity. The development margin rises to 27.9 per cent although there would need to be some sort of profit sharing arrangement with the landowner, but the risk for the developer is reduced considerably meaning they can accept a lower level of return. The project IRR also rises significantly with a healthy equity return, well above the original scenario where the developer invests the full \$12.5 million. The joint venture minimises the debt exposure and interest charged, significantly reducing the risk for the lender and finance costs as a proportion of total costs. In a market where credit is tight, this sort of arrangement would be attractive to a lending institution.

Table 6: Impact of equity contributions on development profitability

	(a) \$2 million equity, remainder debt funded	(b) \$6 million equity, remainder debt funded	(c) \$6 million equity, \$6.5 million mezzanine, remainder senior debt funded	(d) Joint Venture. \$6 million equity from developer and land from landowner
Interest rate	8%	8%	8% / 15%	8%
Peak debt exposure	\$53,091,183	\$48,176,264	\$49,737,866	\$33,146,053
Interest charged	\$5,931,381	\$4,983,696	\$6,615,603	\$2,393,601
Total development costs	\$53,972,134	\$53,024,449	\$54,652,189	\$ 50,388,521
Finance costs as percentage of development costs	11%	9%	12%	5%
Loan to value ratio	70.9%	64.3%	53%	44%
Equity IRR	62.6%	36.8%	32.9%	42.5%
Development margin	17.0%	18.9%	15.6%	27.9%
Project IRR	10.9%	11.9%	10.3%	15%

Finally, Table 7 illustrates the impact of a six-month delay in the development process on profitability on example (b) above. The main impact is on the \$6.5 million borrowed to fund the land purchase (to plug the gap between the developer's \$6 million equity and the \$12.5 million land price). Interest is paid on this \$6.5 million for an extra six months and the overall effect is an increase of \$0.5 million which has a significant impact on the three measures of profitability, potentially pushing the project into the unviable category. Such a delay could force a developer to pull out of the scheme if profit is marginal.

Table 7: Impact of a six-month DA delay on finance costs

	\$6 million equity, remainder debt funded	\$6 million equity, remainder debt funded. Six-month delay in DA
Interest rate	8%	8%
Interest charged	\$4,983,696	\$5,491,165
Total development costs	\$53,024,449	\$54,128,375
Finance costs as percentage of development costs	9%	10%
Equity IRR	36.8%	29.54%
Development margin	18.9%	17.1%
Project IRR	11.9%	9.9%

The examples above demonstrate how finance can determine whether development proceeds and delivers housing. If the project does not fit the bank's lending strategy, is considered too high risk due to the track record of the developer, or the developer cannot contribute sufficient equity and/or secure the necessary pre-sales, then finance will not be available. If the scheme does 'stack up' for the bank, the cost of finance could mean it is not viable from the developer's perspective.

3.3 Pre-sales requirements

The lending covenant that generated the biggest reaction from developer interviewees was that of pre-sales. Pre-sales refer to the requirement to sell a certain proportion of the development, be it lots, houses or apartments, before the construction phase of the development. Pre-sales demonstrates there is a market for the product and also guarantees a certain level of revenue before the loan begins. Banks usually require a 10 per cent down-payment on the lot or dwelling with the purchaser signing a contract to complete the purchase when the title of the property is finalised. Such pre-sales avoid a situation where the developer is unable to sell the development and pay off the debt.

We aim for 50 per cent pre-sales on a project which is usually enough to pay out the builder and refund the bank. Beyond that we recover our costs and the profit. If you can't get to 50 per cent then maybe your product is not right or the pricing is not right. There are very few people in the industry that go 'this is fine I will build it and still sell it at the end'. (Infill developer)

During the GFC, lenders required 100–110 per cent of debt covered by pre-sales, for example the debt is \$10 million and the developer is required to secure pre-sales of 20 apartments with a completion price of \$500 000 each. The level of pre-sales required will vary depending on the type of scheme and the perceived risk to the lender. However, the requirement for pre-sales presents challenges for the developer:

If banks want 100 per cent of debt covered by pre-sales that is tough especially for the small players because it will take them longer to get the project off the ground and the interest, all the holding costs will be greater. (High density developer)

Banks are requiring us to get 50 per cent presales before we start. We need to go out and get sales at aggressive prices early to make it work. In the past we have done this through a display village but this is getting harder. Sometimes we need to bring in a wealthy individual stakeholder to pick up the necessary level of presales at a discounted price. (Greenfield developer)

The structure of pre-sales themselves is also problematic, particularly when developments are aimed at a particular section of the market, for example the affordable end and first-time buyers.

X [one of the big four banks] never asked us for pre-sales before because we always sold everything quickly. Post GFC, a current project requires 70 per cent of [loan] value in pre-sales. \$10 million loan so \$7 million in pre-sales. Not a big issue getting the numbers, but it is the condition of the pre-sales. Banks want 10 per cent deposit and it is OK if you are selling to people that have the deposit but in the whole history of the company only 5 per cent of clients have ever had a 10 per cent deposit. This is the issue now because the banks want pre-sales but the 10 per cent deposit in the affordable market is not possible, so we need pre-sales from the investor market where historically we have sold 50:50. This requirement has a big impact on the affordable market. (Infill developer)

It is a double problem because it is the problem of obtaining finance on the development capital side and then the problem of purchasers getting finance on the retail side and the two of those play into each other and in some cases they are the same bank. (Greenfield developer)

The difficulty is you are trying to sell six to nine months from title and the finance approvals people get do not last that long. So even if you have pre-sales, they will be conditional and so meaningless in a strict legal sense. The banks are asking for a deposit which they can't afford so we only ask \$2000. (Greenfield developer)

Again the impact of pre-sales depends on the type of developer and type of project. In a strong market, particularly with apartments where overseas investors can make a big dent in the required level of pre-sales, the covenant is not a major issue. Where it becomes an issue is for the unproven developer who has to pre-sell 80–100 per cent of the development in order for the bank to lend. This involves considerable risk and up-front costs which many developers are unable to assume. Selling lots at the affordable end of the market with a 10 per cent deposit requirement rules out many first-time buyers lacking the 10 per cent and, as stated above, finance approvals do not last long enough to cover the development period.

Pre-sales can often take the form of display villages, but in areas where there is significant redevelopment every developer has the same idea:

... to get started on the 1500 lots with stage 1, 41 lots, and the bank required us to get 50 per cent pre-sales before we could start. We had to get 20 sales at aggressive prices to make it work. We tried to get a display village which would count as pre-sales, but every developer in WA was doing the same, but the builders had had enough and we had 250 display homes north of Perth. Instead we had to bring in a wealthy stakeholder who entered into an option for 20 lots that said if we were getting to settlement and hadn't had 20 sales he would pick up the remainder at a discounted price. Once we got that, the bank allowed us to progress. (Greenfield developer)

Pre-sales can also delay development which could push the developer into the wrong part of the cycle.

Finance has never been an issue where we have thought we can't do that project but we have had to achieve a certain level of pre-sales. It meant that project had to wait another three or four or six months before we achieved that target and things can begin.

Pre-sales are therefore very important and particularly difficult for the smaller developer who cannot afford the expense or take on the risk necessary to extensively market a development at an early stage just to satisfy the bank. The covenant is an impediment to supply for many small and medium developers and a barrier to market entry for any new developer.

4 AVAILABILITY OF FINANCE

Using medium household growth projections and assuming historic demand and supply trends continue, National Housing Supply Council (NHSC 2012) projections indicate that at least 160 000 new dwellings per annum will be required to meet growth in household numbers. Currently annual completions are a long way behind this target. The first part of this chapter identifies the availability of finance as a key barrier to housing supply. It reviews a range of industry documents that identify access to residential finance as one of the reasons why housing completions have been so low when compared to underlying demand. The second part of this chapter explores, through the developer interviews and other material, the impact of the GFC on the availability of finance before concluding with an assessment of how a developer's organisational structure is one of the critical elements governing access to funds.

The Allen Consultancy Group (2011) prepared a report on the 'credit freeze' for the Residential Development Council of the Property Council of Australia. They highlighted that the GFC 'knocked out key providers of debt capital' and there is now 'less use of debt finance and greater uses of internal sources of finance'. This statement is reinforced by Broadbent (2009) who stated 'leverage has been declining, with bank intermediate debt being replaced by record raisings of equity'.

The Allen report highlighted the major reason behind a reduction in the availability of finance:

The property market became, or was at least perceived to have become, a riskier market. Lower prices and defaults in residential and commercial property loans resulted in properties being considered riskier than other assets. This in turn reduced banks' appetite for new property loans and required banks to manage existing exposures as opposed to writing new facilities. That is, banks had to shift their focus from issuing new loans to managing existing delinquent loans (Allen Consulting 2011, p.8).

A recent NAB Residential property survey (NAB 2013) identified tight credit conditions as the most significant constraint for new housing development. The Housing Industry Association concurred, writing:

... the wider issue of tighter credit supply post the GFC manifests itself in commercially viable residential projects failing to obtain the finance to get off the ground. This is now a very large supply side constraint amongst a plethora of longer running constraints which have been building up for 20 years now. Tighter credit conditions for households also play a constraining role, but the key breakdown occurs on the development (supply) side (HIA 2012a).

The Master Building Association's (MBA) national survey highlights the issue of finance. In the MBA's September survey of 2009, 32.4 per cent of respondents were concerned that availability of finance was having a large/major constraining effect on their businesses. This was up significantly on survey results from 2007. In their most recent survey, June 2013, 22.6 per cent of respondents were still concerned that as a constraint, availability of finance was having a major/large effect on their business (MBA 2009, 2013).

The UDIA publish an annual state of land report. Reports from 2011, 2012 and 2013 produced the following information:

A substantial issue is that smaller developers have exited the market due to difficulties in obtaining finance. The difficulties of obtaining finance are being

adapted to, with higher costs being built into feasibility. This has meant many projects have been shelved or those which have gone ahead require little or no value to be given to the raw land. (Queensland 2011)

The slowdown in production is a result of delays in the approvals process and the difficulty the development industry has with securing lending finance to complete projects or to bring new projects on stream. There is real concern in the industry that banks are limiting their exposure to property by introducing 'caps' which will affect the viability of some projects. (Western Australia 2011)

Despite some improvement in 2010/11, accessing developer finance remains a significant barrier, with high pre-sales requirements and low loan to value ratios impacting on infill development in particular. (Queensland 2012)

... several prevailing issues, such as the difficulty in securing finance and the overlay of federal environmental approvals, could jeopardise future land supply. (Western Australia 2012)

The difficulty of the cautious market, the banks' tight lending policies ... means that the delivery of developed land to the market place—from identification of suitable land to completed works ready for dwelling construction—is slow. (South Australia 2012)

Accessing developer finance, particularly for small and medium-sized developers remains a significant barrier, with high pre-sales requirements, low loan-to-value ratios and overly conservative valuations impacting on development activity. (Brisbane 2013)

There has been a steady decline in number of lots produced per annum since the peak of 2005/06 and with continued restrictions on access to finance, the industry is providing lots for immediate demand rather than adding to stock numbers. Industry is fearful that it might not be able to respond to sudden increased demand. (Perth 2013)

Interestingly the finance quotes were restricted to Western Australia, Queensland and South Australia with other states seemingly viewing finance as less of a constraint or simply not reporting on the issue.

The National Housing Supply Council's 2011 State of Supply report noted a wide range of factors impacting on land supply including 'the challenge, particularly for smaller players, to raise finance'. It also stated:

The building industry has also had to face up to a weaker market, and the volume of property being built has fallen significantly. Approvals for building dwellings other than detached houses (largely multi-unit apartment buildings) saw a longer downturn than those for building houses following the global financial crisis. The Council believes that this is partly due to more limited access to development finance for this form of development subsequent to the GFC and in the light of market conditions. (NHSC 2011)

The recent availability of finance and the role of the major four banks can be seen through the analysis of Australian Prudential Regulation Authority (APRA) data. The APRA data (APRA 2013) shows how commercial bank lending by the major banks (Australia and New Zealand Banking Group Limited, Commonwealth Bank of Australia, the National Australia Bank Limited, Westpac Banking Corporation and their subsidiary banks) on land development, subdivision and other residential projects grew rapidly up to a peak around October 2008 and has since fallen back to mid-2007 levels and the trend remained downwards to May 2013 (Figure 8). Figure 9 below

illustrates how there were numerous sources of finance outside the major banks up until mid-2008 at which point there was a dramatic shift in the proportion of commercial lending attributable to the major banks, demonstrating the significant withdrawal of alternative sources of finance. A similar shift is evident in the retail mortgage sector with lending via major banks increasing by almost 10 per cent in a very short period towards the end of 2008 (Figure 10). In stark contrast to commercial lending (Figure 8), bank lending on residential terms loans continued to grow steadily post GFC.

Figure 8: Commercial property exposure of major banks

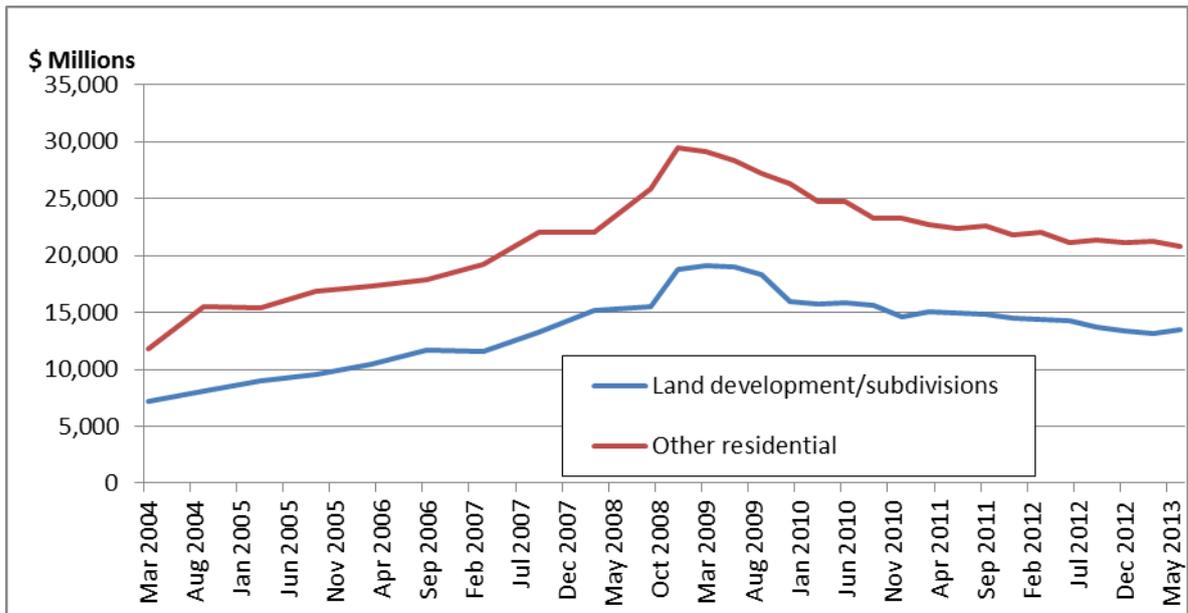


Figure 9: Proportion of commercial property lending provided by major banks

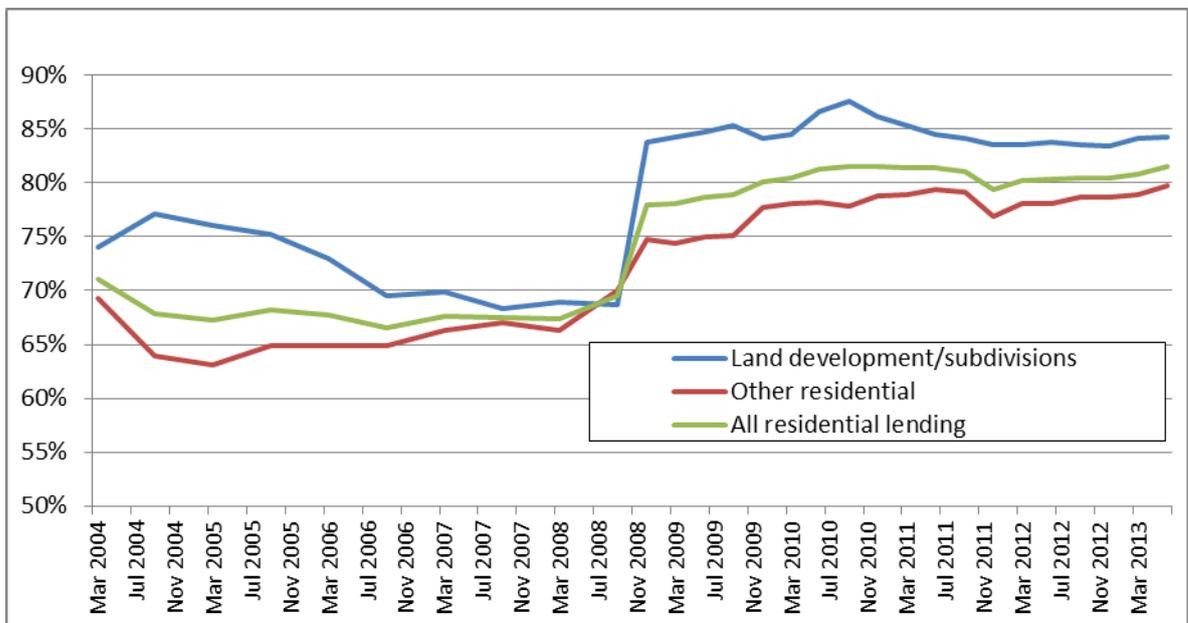
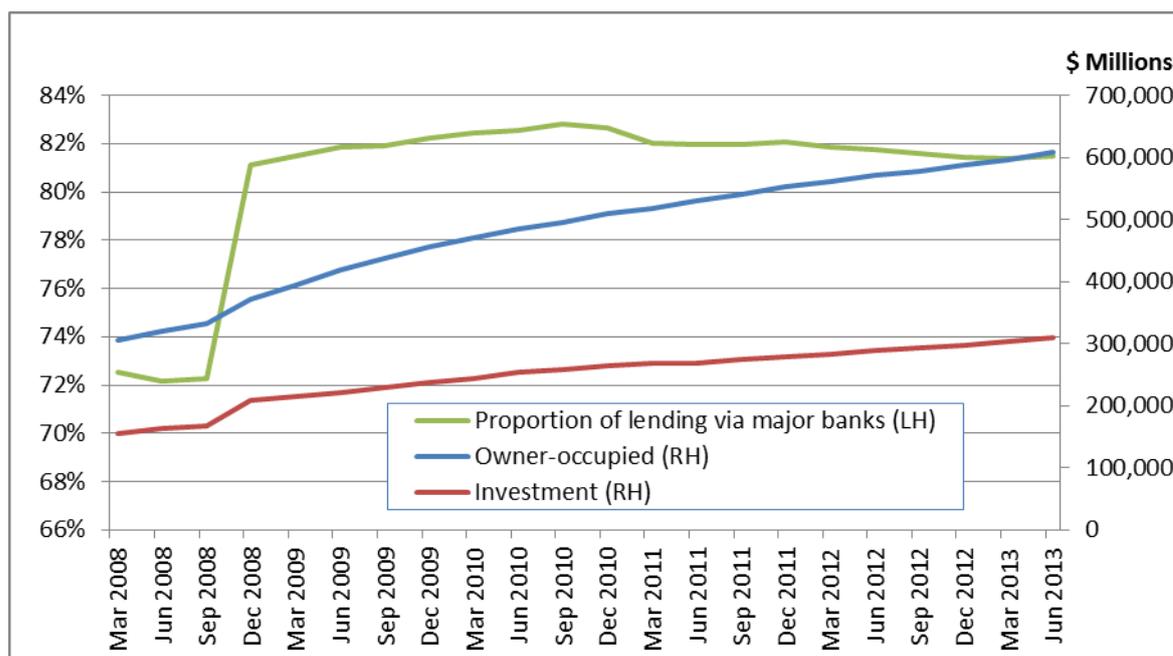


Figure 10: Residential term loans to households: Major banks



Interviews with developers and financiers offered a number of insights into the current availability of finance. Many expressed views that the finance environment was tough but if the project 'stacked up' and the developer had a track record and could meet the loan covenants imposed by the bank, funding would flow.

If the project's fundamentals are rock solid and the demand is very clear and it is a big company like us you won't have a problem at all getting finance. (Greenfield developer)

If the project stacks up, it is in the right place, right design, managed by the right people, for the right people there is no problem getting the money together to do it. I don't think it is any different now than it was then except for pre-sales. (Small developer)

Concerns were expressed that traditional lending practices, where relationships are established with banks at the local level, had disappeared and decisions were being centralised to the detriment of lending practices:

Decisions are made by credit departments over East that have probably never been to Perth. The local people here are just post offices that collect information for them. Years ago you would have had quite competent senior property people and they understood your business. They now have no decision-making powers. (Greenfield developer)

In addition, some interviewees thought decision making lacked flexibility, being determined by the strategy of the bank in terms of their overall exposure to property, a given location, and a specific type of residential development rather than the strength of the project itself.

We had a very strong relationship with [a major bank] and did a lot of projects with them, all successful, but six months ago they stopped and the latest projects we have had to go to other lenders. We finished projects with [the major bank] and new projects are going to new lenders. They don't want to do residential development any more and direction comes down from the top. They ... provide terms that are unacceptable. (Infill developer)

... they [banks] take no account of markets and they are comparing their lending policies with simply how they feel they should be weighted overall in various sectors. (Greenfield developer)

If lenders view a particular location as high risk they will avoid funding at all in that location:

We currently have a project in regional New South Wales and a number of the banks were burnt in regional New South Wales so they are not returning to regional New South Wales, so we have had to look for other funding solutions which involve larger equity. (National developer)

They [the banks] are now steering away from regional areas because they are very difficult to finance. (Greenfield developer)

Many lenders have tried to reduce their exposure to specific sectors of the property market making it difficult for developers operating in those particular areas to obtain funding. However, there were many contradictory views surrounding the current availability of finance. Some interviewees thought the availability of finance had not improved post GFC due to the lending practices of banks:

We bank with [two major banks]. The assumptions they are making now are a bit more cautious and they flow through the management systems they have got and it means they are less free flowing with the cash. (High density developer)

The banks go through internal processes so at the moment [major bank] has gone off the ball and the way they treat finance is not something that works for us. I wouldn't be surprised that in two years a lot of our business is with [the same major bank] because may be they will look at their loan book and want to put in for a couple of projects which will be their coverage. Their conservatism has been to the detriment of other developers. (Greenfield developer)

Things are very difficult. The major banks have a lot of problem loans which they are trying to work through (rather than send into receivership) so we cannot see much reason for an improvement until this situation is resolved. (Development financier)

Post GFC it has been extraordinarily difficult for greenfield developers. We are in the top three by size of greenfield developers and are highly regarded so probably have less difficulty than a lot of people out there. When [a major bank subsidiary] came back into lending they were only lending to four companies including us, I think they are looking to expand that now, but generally very difficult. (National greenfield developer)

The prospects look very much the same into the future. There is no light. Banks risk appetite seems to have got worse. Things won't change until they clear their bad debts. The second tier banks are struggling to get access to finance at the right price so they aren't going to be much help. (Small developer)

Other interviewees thought the availability of finance was improving:

We are finding now that banks are starting to get back into the game. They helped create this land shortage and in the last two to three months they are expressing an interest. They are seeing that they are underweight in terms of their guidelines I think the funding one will fix itself; the banks have done enough damage now. (Greenfield developer)

Yes, there appears to be more funding available, however it remains project specific so it is not necessarily more readily available across the board. (UDIA WA personal communication)

All the major banks I am talking to are desperate to place funds in development projects. The reason they have all this money left over is that their rules are too tough, and there are not enough projects to meet their hurdles. (Small developer)

The final quote highlights the way banks changed their lending practices post GFC. This is discussed in more detail below.

4.1 How did the Global Financial Crisis affect the availability of finance?

The ability of residential property developers to access finance varies depending on the position of both the business and property development cycles relative to that of the credit cycle. Historically, even with the cyclical nature of the credit market, many providers of finance in Australia actively pursued residential property development finance deals as they provided higher returns on funds. Where credit is readily available, many financiers try to maintain/grow market share. This can be achieved through offering higher gearing and accepting low pre-sales (Bryant 2012; Wilkinson et al. 2008).

Originating overseas in 2007–08, the Global Financial Crisis (GFC) caused serious instability on the Australian financial market and a loss of confidence in the wider economy. As a consequence, there were large asset value-write downs, and financial providers had limited liquidity and appetite for corporate lending. Without exception, the GFC has changed the property financing environment across all development entity types irrespective of scale of market capitalisation.

The GFC caused the housing finance landscape to change significantly as many foreign and non-bank lenders exited the Australian lending market, clearly evident from Figure 10 below. In 2013, major Australian banks and their subsidiaries had in excess of 80 per cent of all commercial residential lending and residential term loans.

According to the RBA (2012), part of the issue is the decline in commercial lending (including residential development finance) by European-owned banks. Since the peak in 2009, such lending has continued to shrink and has now fallen by 60 per cent, this being proportionately more than the decline in their total business lending. To some extent, the pullback can be explained by some of the banks being under pressure to de-leverage given the difficulties their parent groups are facing in Europe. By contrast, Asian banks have increased their exposures to the Australian commercial lending market over the past two years, though from a relatively low base.

In addition, according to Ivashina and Scharfstein (2010), a significant GFC impact is the unwillingness of lenders to extend credit to borrowers with which they have no existing relationship. Therefore, prior banking relationships form an important consideration for residential developers alongside an established track record of successful residential property development completions.

While lending in residential development remains a conservative proposition, mezzanine debt in transactions receives limited support. Those offering senior debt require stringent inter-credit terms and conditions and can be reluctant to have mezzanine finance in their capital structure. The property developer needs to demonstrate a strong track record and high debt coverage, pre-sales etc. (Awad 2011) to secure senior debt.

Besides property specific types of finance, corporate funding offers the developer access to alternative finance linked to the developer organisation. Corporate finance provides a degree of flexibility for the developer as there is no need to renegotiate finance on each new residential development as long they are below overall debt covenants. This tends to be limited to larger organisations with an established development track record and with substantial assets to act as security for the loans (see Section 4.2). Major property funds and Real Estate Investment Trusts (REITs) can fall in this category (Havard 2008; Rowland 2010).

Even the larger organisations such as A-REITs were hit by the GFC, which caused them to restructure their debt to equity ratios, in many cases to satisfy their partner banks. Figure 11 below indicates debt to equity ratios for the major development companies over the period 2003–12. In the post GFC period, 2008 onwards, there is a general trend towards lower debt to equity ratios.

Figure 11: A-REIT land developers debt/equity ratios

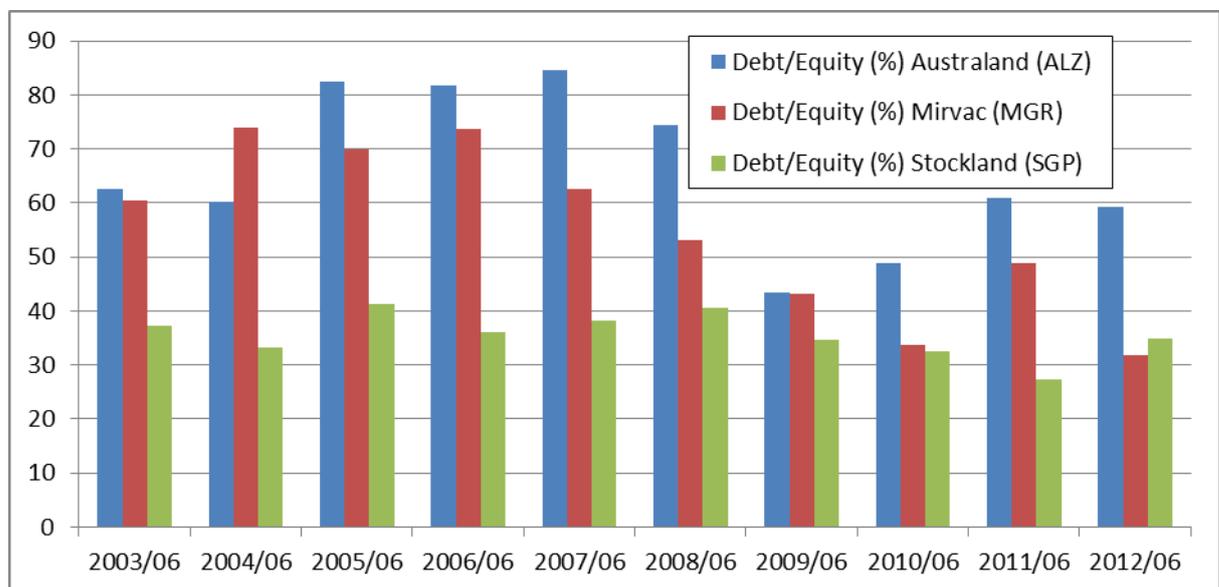
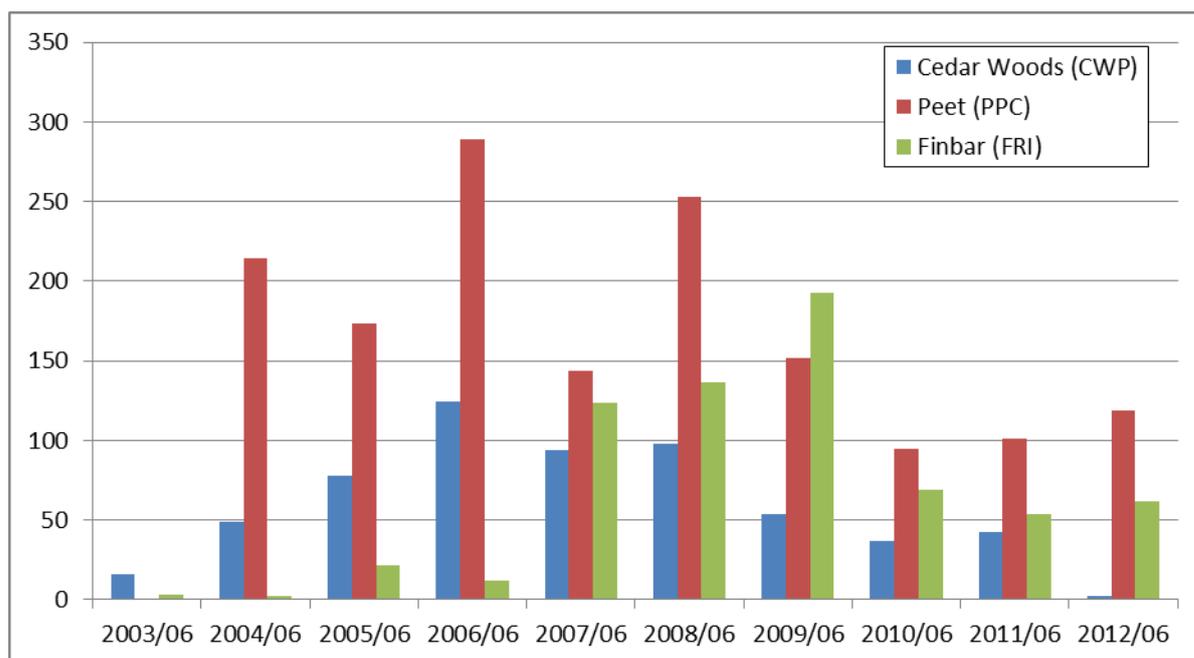


Figure 12: Non-A-REIT Land developers—Debt to equity ratios



Although similar information is unavailable for private companies, this trend was overwhelmingly supported in the interviews through numerous comments confirming financiers' more stringent requirements with respect to loan to value ratios. In general, financiers are more risk averse and more stringent in lending requirements in the post GFC era.

Interviews highlighted how banks adopted a more cautious approach to bank lending post GFC. The most important insight for this issue was expressed in interviews with senior management staff of listed property developers. In explaining the different attitudes of banks in financing in the post GFC environment, a CEO of a listed company commented:

Before the GFC we were asking for as much money as we could get. Nowadays we are looking at the amounts we might ask the bank for, trying to put the bank's hat on and ask how comfortable are they going to be? and how comfortable are we going to be? ... we don't want to be at a point where we are highly geared and are going to get a call from the bank. It is probably being a bit more cautious and not asking banks for as much as we did in the past.

With respect to major banks' current attitudes to project assessment, the same CEO commented:

Our decisions on finance are based around project economics as [it] is the first layer of analysis that finance providers and the second layer is really related to their own set of circumstances; do they already have too much exposure in a location? ... We like the project, but we have too much exposure already in that space. The analysis that they do is not dissimilar to how we approach it. Lenders are being much more careful and more stringent in their risk assessment. In addition, Basel 3 banking regulations has got them doing more aggregation of loans that they didn't do before. (Greenfield developer)

When asked of the significance of the GFC, another senior representative of a listed development company stated:

Lending requirements have definitely changed. The biggest thing is when the market was hot and everyone had finance there was no concern with rollovers and reporting but now every time something changes in terms of a date you have to go back to the bank and they'll look at it and every time they roll over or extend the covenant it is about a \$70 000 hit for the size of the project and these costs have to be passed on to consumers.

I have not seen this stuff before in terms of availability of finance. The GFC created a perfect storm of risk aversion, oversensitivity and increased regulation. All are getting tarred with the Centro brush ... It is creating brand contagion.

As discussed in Chapter 3, the GFC has changed the way development companies deal with land purchase. With respect to the environment for financing syndicated land development projects:

I think we are heading back to the old traditional syndicate financing environment where the land is purchased with 100 per cent equity and debt only applies to development costs. This is how it was for many years pre-GFC and if we head back to that environment I don't think it will necessarily be a bad thing. (Greenfield developer)

The interviews also provided significant insight into approaches taken by financiers in respect to loan covenants in the post GFC environment.

When the bank is looking at our portfolio now they will apply different weights to land that is generating cash flow and has all approvals and pre-sales from land that is perhaps zoned but not underway and land that is not zoned and so on. So there has to be the right balance between these land types to stay within lending covenants If you are a single project company with a project that is not generating cash flow and you are not in a position to go out and get pre-sales then you are not in a position to get funding from a bank and you will really need equity to get you to the next level. (Greenfield developer)

Current lending requirements are very tight but alright for quality projects and if you have a blended portfolio it can be good. When you hear the hard luck stories it is mostly the people with only one project who haven't got pre-sales or approvals. This is where the banks are taking a risk-averse approach. (Development financier)

A senior representative from a listed property developer commented:

In syndicated developments before the GFC debt/equity mix in a syndicated development was 65 per cent Now [you] would be lucky to get 50 per cent on a really good day ... if it is a quality project in location then the banks will look at it ... if it is marginal it is harder. Projects which are funded at the corporate level have a greater chance of going ahead.

Bryant (2012) surveyed the major Australian banks and two lending providers to detail the changes in the key lending criteria for new housing supply in Queensland over the GFC period. Even though the work focused on Queensland, the analysis confirms the comments highlighted above.

Table 8: Changes to key lending criteria for development funding

Key lending criteria	Pre-GFC (2007)	GFC trough (2008–2009)	GFC recovery (2010)
<i>Gearing (LCR)</i>			
Senior (%)	80–85	0–70	60–75
Mezzanine (%)	90–100	Nil	80–85
Equity (%)	0–20	25–100	15–20
Pre-sales (debt coverage) (%)	0–60	100–110	80–100
<i>Pricing</i>			
Senior (%)	1.5–2.2	2.5–4.5	2.5–3.5
Mezzanine (%)	15–20	Nil	20–30

Source: Bryant 2012

Table 8 illustrates how banks' security requirements have increased significantly since the GFC. As part of the lending requirements, the emergence of more developer cash equity is evident. Furthermore, pre-sales can have a positive relationship to gearing levels: the higher the gearing, the higher the level of pre-sales required. The cost of debt, expressed as the margin over the bank bill swap rate, moved dramatically over the GFC period, as with higher cost of funds, as well as the higher pricing of risk (Bryant 2012). In addition, the length of debt facilities has also shortened requiring developers to re-finance which can prove expensive.

Whereas debt financiers would previously provide debt facilities on three or perhaps five-year terms, where they are available the term is compressed to a much shorter term. (Allen Consulting 2011, p.9)

Clearly the GFC has changed the lending environment from a period 'probably never to be repeated' (economist, major bank) to one regarded by one financier as more cautious and sustainable:

So all those cowboys that were in the market, doctors, dentists, lawyers and accountants as well as builders and real estate agents, they didn't understand the market risk and banks were so desperate to supply the capital that they just discarded all their good lending policies they had in place and these people were able to go out and get a loan. I've seen a loan from a major institution in Australia lend \$25 million to a 26-year-old real estate agent who had no experience in a project that was completely flawed from the outset. Their \$25 million ceiling, they managed to recover about \$2–\$3 million of it. You just needed the site and proposal and you could go out and get the money. (Development financier)

Thus there is an interesting contrast between those developers struggling to obtain funds, stating how much more difficult it is post GFC, and the banks stating they have 'moved back to policy, not tightened' (economist, major bank). This statement indicates that banks lent more freely in the run up to the GFC with reduced LVRs, pre-sale and track record requirements. However, there are no data available to examine lending policies in a period of relative market stability to assess the claim that banks have moved back to policy, whatever that policy may be. Current lending criteria may be more sustainable from the lenders position because it is more cautious, reducing the chances of bad debt and over-exposure, but there are implications for housing supply, particularly areas reliant on smaller scale actors.

4.2 Organisational structure and the availability of finance

During the developer interviews it quickly became evident that the structure of the development organisation had a significant impact on the extent to which the GFC affected lending conditions and the availability of finance. In very simplistic terms, the size and structure of a developer will affect the organisation's ability to secure credit. A small developer concentrating on developing and selling small infill developments, for example, generating a profit from such sales will obtain their finance on a project specific basis. When they want to undertake a development they will need to approach a lender to secure finance. The lender will make a decision based on the track record of the developer and the strength of the project itself. In this case there is no guarantee that the developer will be able to secure funding for a given project, therefore the developer seeks to arrange access to finance as soon as possible. They do not want to purchase a site and go through the lengthy approval process only to be unable to obtain finance for the construction phase of the project as this would leave the developer holding land, tying up vital capital that they can do nothing with. In this case the developer may have to sell the land to another developer who may be able to obtain the finance. Some developers actually base their entire business on securing development approval for sites and on-selling, gaining their profit from the uplift in value resulting from approval. However, there needs to be a market for sites with development approval and if finance is scarce for small to medium sized developers, such a market is limited.

Small or medium sized private companies relying on project specific finance will look to secure a source of funding often before engaging with the landowner. This position is highlighted by a medium sized infill developer in Perth: *'The first thing we do is look for finance, before buying the site'*. If a bank believes the project to be profitable they will agree to finance the project and the developer can proceed with the development process. The finance may not be required until much later in the process, usually the construction phase, but the developer knows it is available and can proceed with site acquisition and through the development approval process and draw on the loan when necessary.

Large private companies or those publically listed will secure finance in a very different way. They will have a line of credit or corporate debt facility secured on their assets which they will use to fund development activities. Rather than seeking funds for a specific project, the organisation will use available credit to fund projects and may look to extend that credit, if necessary, to take on new projects. Revenue from completed projects will be used to pay off debt and to keep debt levels within acceptable limits. Organisations able to secure funding in this manner have seen less impact on their operations post GFC. Banks reduced exposure to property and forced many development companies to reduce their level of debt requiring a change of strategy in many cases, but finance has remained easier to access at the corporate debt level in comparison to smaller companies seeking project specific finance. Such organisations are also able to raise equity through rights issues increasing their access to development funds.

Generally, larger property companies have an extensive active equity investor base, as property returns traditionally offer good diversification from alternative asset classes. The debt component is structured to optimise the property returns without impacting on the underlying property performance characteristics. Property development funding taps into the strong property company (trust structure) balance sheet and so lowers the cost of debt capital. According to The Allen Group (2011, p.13):

Banks required one third less capital per dollar lent to higher quality A-REITs and listed property developers relative to mid-tier and private developers.

These \$100 million plus debt facilities pool quality commercial investment properties which then act as security for the riskier but more profitable property development projects. This allows the property company to manage the financing of a portfolio of property development projects, rather than financing individual stand-alone projects. Commonly referred to as a Multi Option Facility (MOF), it can be sourced generally for a defined period (five to seven years) and depends extensively on capital market conditions of the private and public debt sector.

Financing options for developers depend on property and capital market conditions as well as developer track record, project information including end value and lender's (banks and non-banks) requirements. The lending market becomes more specialised with the increased size of residential property development. Variations in lending criteria can lead to different developer obligations and key financial lending hurdles, for example: the need for presales and the form of developer financial guarantees for the residential development project (Bryant 2012; Wilkinson et al. 2008).

The remainder of this section looks at some of the advantages that major A-REITS and listed developers have over medium and smaller developers in terms of raising finance.

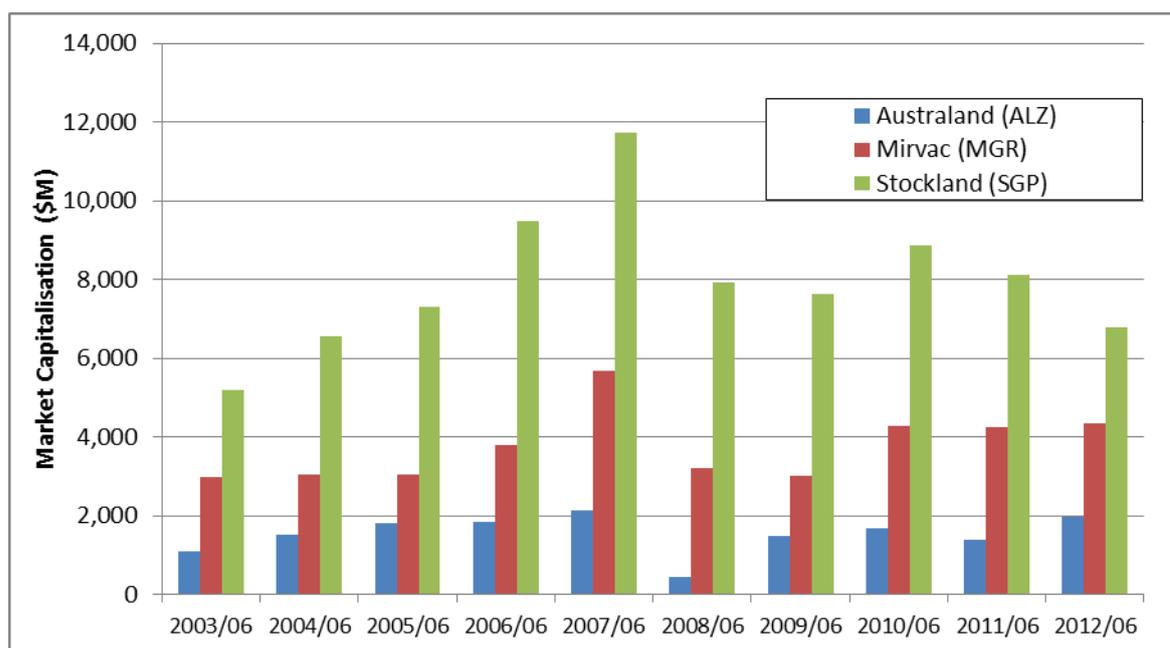
4.2.1 Listed public companies

Australian Real Estate Investment Trusts (A-REITs) permit indirect investment in a portfolio of property assets. In Australia there are currently three A-REITs listed in the ASX200 index involved in residential land development:

- Australand Property Group (ALZ)
- Mirvac Group stapled (MGR)
- Stockland stapled (SGP)

The relevant annual market capitalisation for these three companies 2003–12 are shown in Figure 13.

Figure 13: A-REIT land development—Market capitalisation



The A-REIT structure allows investors to gain exposure to a variety of real estate investment opportunities diversified by market segment and geographic location. Major assets are held in trust structures allowing income to be 'passed through' before tax to investors, where income is taxed at an investor's individual marginal tax rate. In addition to income from trust assets, most A-REITs also provide additional income from various forms of management associated with the trust assets. These are known as 'stapled securities' in that the security comprises a trust component in addition to a management component. Due to trust status there is a requirement that all income from trust assets be paid out in the form of distributions to investors. As a result, A-REITs represent an investment structure characterised by high payout ratios and corresponding low levels of retained earnings from annual activities.

In reviewing the recent annual reports from the above major A-REITs, a general characteristic is apparent whereby the majority of assets and income, 60–70 per cent, is devoted to recurrent income from office, retail and industrial property. The remaining assets, 30–40 per cent, are allocated to 'growth opportunities' and it is within this portfolio that residential development occurs.

In Australia there are a number of non-REIT structured property development companies. An important financial characteristic of the structure allows these companies to retain earnings as there is no requirement from a non-trust structure to distribute all earnings. This allows a more conservative payout ratio policy to be implemented and the possibility for fully franked dividends to investors. In the post GFC era there have been a number of financial casualties in this area of the property development market.

4.2.2 Private companies

In this study interviews were conducted with a number of representatives from private development companies throughout Australia. Since annual reports for private companies are not available for public scrutiny, our information with respect to private companies is limited to information revealed in interviews.

4.3 Raising finance

Public companies arrange development finance through a combination of retained earnings, equity raisings, debt instrument issues or traditional bank lending. Some are also involved in retail syndication as a core part of their traditional business model (for example Peet Ltd). Joint-venture activities also comprise a significant portion of finance for individual development projects.

Private companies arrange development finance primarily through syndication structures, individual private companies, trust vehicles and traditional bank lending sources. There is a higher proportion of mezzanine financing applying to development activities of private companies.

The syndication model has been a traditional source of funding for the development of residential land in Australia for a number of years and is discussed in Section 5.1 below.

The A-REITs structure has advantages associated with a large balance sheet that includes many passive income producing property investments. This added security over the total portfolio of property assets makes the A-REIT sector attractive for major bank lenders and provides more advantageous lending terms and conditions.

Within the non-A-REIT listed companies there are advantages for companies with low levels of debt on the balance sheet, regular stable cash flow and good levels of retained earnings. Companies with these characteristics and stable lower end payout

ratios have been able to raise additional equity from existing shareholders in recent years. This has been a preferred method of funding acquisitions by some companies together with existing dividend reinvestment and bonus share plans.

Private developers typically have an advantage in that they are unlisted and not exposed to the scrutiny of the public listing process whereby funding opportunities can be constrained by volatility in share prices. Larger scale private developers such as the Investa Property Group also have the advantage of being able to access international funds and can enjoy the benefits, or suffer the downsides, associated with currency movements. Small private developers are able to compete within market segments not attractive to larger developers by virtue of scale. This can be an advantage in accessing appropriate sites matched with individual expertise of the development entities. Typically, development finance for these projects comprises a mix of debt and equity with bank lenders being more stringent on debt ratios and standard hurdle criteria in the form of development approvals and pre-sales.

Among the interviewees, a number of smaller scale developers, both public and private, indicated the difficulties associated with purchasers obtaining finance from bank lenders in addition to project specific finance. This was perceived as a particular difficulty in achieving necessary approval criteria with respect to pre-sales, most notable in the affordable housing segments.

A number of interviewees expressed the opinion that larger public companies were advantaged by their corporate structure when seeking finance in the current economic environment.

The companies relying on the traditional project specific debt/equity model were typically private companies and more specifically the smaller private companies. However, there were some relevant comments made with respect to senior management staff of the publicly listed development companies that also warrant discussion.

Senior staff from the main listed companies indicated in interviews that the major bank financiers have become more conservative in the post GFC period in regard to traditional project specific debt/equity models of financing land development. Essentially, this was related to banks' reluctance to be exposed excessively to either one company or to specific geographic locations or market segments. This had led to a 'club' approach with the majority of new financing occurring in joint arrangements with several of the major banks. As an example, the CEO of a national developer confirmed that a recently negotiated \$110 million corporate debt facility was with a syndicate of two major banks.

This was also evident with respect to funding of some of the development costs of the larger retail syndicates. Syndication provides an advantage with respect to significant retail contributions of equity but banks still remained conservative with respect to exposure in financing development costs.

The opinion was expressed that larger publicly listed companies received more favourable treatment with respect to finance applications than private companies. The smaller developers indicated that in some cases the traditional debt/equity project specific financing model was very difficult to make work with the major banks unless superior project strength could be demonstrated in terms of significant pre-sales and levels of equity contribution appropriate for required loan to value ratio standards. In this case, mezzanine financing was becoming more appropriate for some of the less bankable smaller scale developments undertaken by the small private developers.

5 FINANCING SPECIFIC TYPES OF DEVELOPMENT

The cost of, and access to, finance varies by organisational structure and the track record of the particular developer. As a result there is also variation by development sector given the type of developers dominating greenfield development: large, national developers, and infill development; smaller scale, often local developers, to take just two examples. This section uses four case studies to describe the financing of four different types of residential development—greenfield (WA), High density (Victoria), medium density infill (WA), and affordable housing (national) to explore this variation. The case studies highlight differences in the availability of funding and how organisational structure is critical to the structure of financial arrangements.

5.1 Greenfield development

In general, the term 'greenfield development' is applied to large-scale development on previously undeveloped land. Typically this land is on the rural/urban fringe of major cities comprising large land holdings commonly referred to as 'englobo' land. This is in contrast to development activity whereby existing urban areas are modified or redeveloped, commonly referred to as 'brownfield' or urban infill development.

Typically, greenfield development projects occur over long time frames (NHSC 2012). Historically, in Australia these projects have involved some participation from major institutional investors due to the nature of capital requirements and the duration of project cash flows. In greenfield development there are often lengthy periods of nil or negative cash flows due to long time horizons with respect to rezoning, planning approvals and final sale potential.

Historically, a common model applying within Australia has involved initial major institutional capital from superannuation (or similar) funds whereby capital is introduced in the early stages to acquire the development, thereby matching duration of cash flows with longer term future requirements for superannuation benefits. In these cases, the land often required long periods before becoming 'ripe' for development, incurring holding costs prior to development being feasible. Often during the later development phase, smaller parcels of land might be sold to other developers for more immediate development or joint-venture arrangements negotiated with the original institutional landholders to facilitate final development.

Some examples of recent and current greenfield development projects within Australia's major capital cities include:

- Sydney: Elizabeth Hills (Mirvac); Waterside (Stockland); Greenhills Beach (Australand); Sea Crest Flinders (Peet).
- Melbourne: Arbourlea (Stockland); Casciano Grove (Australand); Berwick Waters (Australand); Williams Landing (Cedar Woods); Aston Craigieburn (Peet); Riverstone (Satterley).
- Perth: Meadow Springs (Mirvac); Newhaven (Stockland); Harrisdale Green (Cedar Woods); Shorehaven at Alkimos (Peet); Eglington (Satterley); Ellenbrook (LWP).

Typically the developers operating in this space are major developers with a significant track record in land development. Three of Australia's major Real Estate Investment Trusts; Mirvac (MGR), Stockland (SGP) and Australand (ALZ) are involved in greenfield development throughout most states of Australia. In addition, several other major listed public companies (non-REIT structure) such as Cedar Woods Properties (CWP) and Peet (PPC) are involved in significant levels of greenfield development, again, throughout Australia. In terms of non-listed

development companies, private syndicates are also responsible for significant levels of greenfield development. An example is the Satterley group based in Western Australia but also operating in Victoria. The LWP property group is another private greenfield developer based in Western Australia but also with developments in New South Wales.

Traditional finance for greenfield development projects has consisted of primarily equity capital. This has generally been sourced through major institutional investors willing to allocate portions of their investment portfolios consistent with the long-term nature of greenfield development. Syndication has also been a traditional source of equity funds (see below).

Whereas traditional lending criteria with respect to pre-sales and loan to value ratios (LVRs) were still regarded as important, there was a view that specific project economics were not considered as important as the lender's own set of financial circumstances. Banks also consider geographic exposure to greenfield development and the stages of individual developments. Banks evaluate their overall lending portfolios for greenfield development with respect to different weightings for land that is generating cash flow from land that has approvals and pre-sales in place, from land that is not currently zoned for development, and so on.

Pre-sales are considered very important, but a common view was expressed from various developers that strict criterion on pre-sales were impractical in some respects due to the transaction frameworks surrounding first-time buyers who comprise a large portion of the market for greenfield development:

In some of our estates at the lower price points our purchasers just can't get the finance ... So we can't get the capital out of the lots in order for us to proceed to the next stage ... It is a double problem because it is the problem of obtaining finance on the development capital side and then the problem of purchasers getting finance on the retail side... These two factors are playing into each other and in some cases it is with the same bank. (Greenfield developer)

5.1.1 Land syndication

The land syndication model has become a firmly established system for acquiring and financing greenfield development in Australia. Syndication offers both small and large investors the opportunity to participate in ownership and development of greenfield land parcels. In general, the process of syndication is facilitated by an organisation with syndication experience (syndicate promoter). A good example is the Peet group in Western Australia which currently offers syndicate investments in four states of Australia. In most cases a land development syndicate is a single purpose vehicle whose major asset is the land to be developed. This enables a relatively simple business operating structure specifically adapted for the appropriate development of the land investment.

Typically, the syndicate promoter has identified a parcel of land suitable for development and assessed the financial viability. Once this has occurred the financial structure is created usually in the form of a company or trust (managed investment scheme) to facilitate syndication. The syndicate promoter will generally negotiate and complete the purchase of the land parcel on behalf of the syndicate.

Once land has been secured through either an option contract or outright purchase, relevant due diligence processes will also be organised by the syndicate promoter prior to preparation of prospectus documentation. The offer to participate in the syndicate will be made to potential investors through a relevant prospectus and

product disclosure statement which will be lodged with the Australian Securities and Investment Commission (ASIC).

Investors wishing to participate in a syndicate complete necessary documentation according to the 'offer document' as detailed in the prospectus. There can be significant variation in the minimum and/or maximum amounts required for investment in a syndicate. At the time of writing, Peet syndicates were typically structured with investment units specified in amounts of \$1 and requiring a minimum investment of \$5000. Generally there is no maximum investment level, however syndicate promoters reserve the right to 'scale' subscriptions so that maximum contributions are capped at a certain level to enable participation by a suitable number of investors.

Once the syndicate is fully subscribed, the syndicate promoter will form the project development team. All necessary planning and development approvals will be sought and obtained prior to construction processes commencing.

In general, syndicate developments will vary over significant time-frames. This information is generally clearly stated in the prospectus documents. Typically, development will be staged to enable appropriate financing arrangements and to cater for market demand. Construction works and sale of land will proceed in a staged process throughout the life of the project.

Investors in the syndicate are kept informed of progress throughout the course of the development with dividends paid and capital returned progressively as profits are earned. Payment of dividends and capital returns are at the discretion of the syndicate promoters who monitor cash flow, funds management and taxation requirements. Finally, when the development is completed the syndicate is 'wound up' and final dividends and returns of capital are made to security holders.

Equity capital, through structures such as syndicates, is a preferred model for greenfield development, due to the certainty created with respect to timelines and feasibility of the project and the long lead in times being unsuited to debt funding. If basic equity capital is in place, then developers can proceed with necessary procedures for gaining development approvals in order to move the project to the initial marketing phase. Debt financing is the preferred option for construction works and generally this is achieved through shorter term debt instruments. In general, developers and financiers have an aversion to high ratios of long-term debt for greenfield development projects.

5.2 Medium density infill development

The term 'infill development' is typically associated with the (re)development of land within an existing urban area. Typically, this will be built form residential construction through either medium or high density zoning policies. Within the urban planning community, the term 'infill' can also be applied to planned community redevelopment or growth management programs. Infill programs often focus upon the reuse of obsolete buildings and sites. As an example, in recent years the West Australian government has facilitated infill development programs in a number of areas on land previously used as school sites. In most cases, the school sites have been transformed into planned residential communities.

In contrast to greenfield development, one of the distinguishing characteristics of infill development is the project time horizon. It is often more costly for developers to develop urban infill sites within existing urban areas due to higher land costs combined with other costs involved with removing existing structures and satisfying infrastructure requirements such as water and power, although the issues related to infrastructure provision vary by state (Rowley & Phibbs 2012). Typically, urban infill

projects do not have long holding periods prior to development as generally the land is seen as being close to 'ripe' for immediate development soon after purchase.

In many of these projects, government agencies can also be involved in the development and negotiation process. Landcorp in Western Australia and Urban Growth in New South Wales are two relevant government agencies. In general, the wider purpose of these agencies is to put into practice state government plans for urban growth and to facilitate the supply of land and built form housing in association with the private sector.

Another important distinguishing feature of this type of development is the stratification across price segments. In most of Australia's capital cities there are high density infill projects which could be classified as luxury housing types. Examples include some Docklands projects in Melbourne, Burswood in Perth and various inner-city localities in Sydney. Often these projects are undertaken by the largest public company developers (A-REITs) within Australia with the Mirvac group (MGR) being one of the major developers in the luxury apartment sector. Australand (ALZ) are also active in apartment development, tending to focus on more affordable price segments.

On the other hand, this segment of the development market is also popular with a number of 'boutique' developers who tend to target more affordable market segments with smaller projects. The smaller developers tend to be individual state-based companies. Some are listed public companies such as the Finbar Group in Western Australia. A number of others are private companies with well-established development track records in their local communities. The activities of a number of these smaller developers tend to be highly focused and specialised by region, strategy and price segmentation. Some examples of infill/medium density development are:

- Sydney: Maestro at Harold Park (Mircvac); Clemton Village, Clemton Park (Australand); The Pottery, Kingsgrove (Buildform); Air, St Leonards (Holdmark); Embassy Residences, St Leonards (Loftex).
- Melbourne: Newquay Promenade (MAB Corporation); Array, Yarra Point, (Mircvac); Terrazzo Townhouses Richmond (Manhattan Hanson Group); St Joseph Terrace Homes and Warehouses (Domain Hill Property Group); Callaway Park, Sunshine West, (Australand); Banbury Village, St Albans (Cedar Woods); Franklin Lofts, Monterey, 333 Coventry St (PDG Corporation).
- Perth: The Peninsula Burswood(Mircvac); Spring View Towers, Rivervale, AU Apartments, Adelaide Terrace, East Perth (Finbar Group); Cockburn Central (Australand); Nautilus, Rockingham (Cedar Woods); Baldivis, Maddington (Nicheliving).

This sector of the development market is characterised by a wide range of participants in terms of financial size and structure. As noted above, three of Australia's major Real Estate Investment Trusts, Mirvac, Australand and Stockland, have been active in this market over a number of years. Scrutiny of recent financial reports and operating statements indicates a general tendency from these larger participants to be moving away from development in some of these segments, most notably the luxury apartment market which has experienced some difficulty in the post GFC era.

The larger public companies arrange development finance for infill/medium density development in a similar manner to their other forms of development. This tends to be through a combination of retained earnings, equity raisings, debt instrument issues or traditional bank lending. Scrutiny of recent financial reports for the larger public companies also confirm a recent emphasis towards a variety of capital efficient

structures such as wholesale relationships with groups of investors, structured land payments, development agreements with landowners and joint-venture arrangements.

Other than the large public companies, there are a number of medium sized developers, with varying financial structures, active in this market. Some are public companies such as the Finbar Group and Cedar Woods in Western Australia and Villa World Ltd operating on the east coast. There are also numerous small private developers who tend to be very regional in their development activities.

Typically, the medium sized developers tend to be very focused both regionally and in terms of market segment. For example, one development organisation interviewed focuses almost entirely upon the development of medium to high density apartment buildings within a capital city. On the other hand, another organisation emphasised affordability with their target market being mainly first home owners through medium density house and land packages in carefully chosen infill development sites. Both of these groups have experienced considerable success in their activities during recent years.

Within infill development there are a numerous ways to structure the development and secure the necessary finance. For example:

1. One hundred per cent direct purchase by the developer using their equity.
2. Invite equity partners and share profits which involves minimal equity from the developer.
3. Joint venture with existing land owner whereby the landowner contributes the site as initial equity and profits are based on the value of the land as a proportion of total development costs.

One of the issues identified during the interviews was securing an appropriate debt component to make sure that return on equity was sufficient to make the project profitable:

Often with 50 per cent required equity there is not enough leverage in the project to achieve a suitable profit. If you want to raise equity it must offer a reasonable return, but without the leverage there is often not the return. This is especially important in the built form affordable market because the builders' margin is very uniform and must be paid. If you are not a builder in the development, the profit margin is much less certain. (Infill developer)

Traditionally options have been used to secure development sites but an interviewee commented on the difficulty of securing options on quality sites:

You cannot secure infill land with options; owners will not look at them. The better the quality of an infill site the stronger the offer you have to make in terms of price and conditions. Everything needs to be a cash offer with no finance conditions. If we can do this we prefer to negotiate a longer settlement period with an unconditional offer so that we can do all the development approval work preferably eight months in advance. Once we have settled on the site we can move into development instantly. (Infill developer)

The infill planning approval process is complex because of its impact on the existing community and infrastructure. As a result this makes it more vulnerable to planning delays and increased finance costs.

5.2.1 Financial infill development post GFC

Allen Consulting (2011) stated that infill development is particularly vulnerable to constraints in available finance because such development faces higher costs, needs

to be larger to be viable, and faces greater community resistance and potential for planning delays and therefore suffers from greater commercial risk.

During the interviews it became clear that the ability of the small and medium-sized developers to secure funding for infill development had declined significantly post GFC. Even a developer with a strong history of successful development with a particular lender saw a sudden change:

We had a very strong relationship with one of the major banks and a lot of projects with them, all successful projects. About 12 months [2011] ago they just stopped lending so that we have had to negotiate our latest projects with other lenders. (Infill developer)

Changes to prevailing loan covenants was a recurring theme. Standard lending covenants with respect to pre-sales and loan to value ratios have always been in existence but varied considerably both during and after the GFC era. In addition the interviews uncovered numerous comments from development representatives confirming the different approaches taken by the major banks. Among the successful participants within this market segment, close long-term relationships with financiers protected them from the fate of other, similar developers who were simply unable to re-finance a particular development or could not obtain affordable finance for new development projects.

We had arrangements with financial institutions pre-GFC where it was 20 per cent equity 80 per cent debt and now it is 50 per cent equity. Some of our projects in the later stages that look to be successful might get up to 65 per cent debt. (Infill developer)

With one of the major banks we have three projects financed with them, but they are not going to lend anymore because we have enough exposure with them ... We are also dealing with a smaller lender who has agreed to lend when our debt with our major lender is paid back. (Infill developer)

Some banks just don't want to do residential development anymore and the direction comes down from the top. They don't say directly we are not lending to you, they just offer terms and conditions that are unacceptable and they know that. (Infill developer)

Terms and conditions that were considered unacceptable tended to be imposed on those developers without the appropriate track record and therefore considered an unacceptable risk by the lender:

If you tried to get established now it would be much harder because we started as a small company but the biggest problem you would have now is the need for massive equity, probably you would need 20x more equity now. You would need millions in the bank before anyone would lend you anything. (High density developer)

Clearly this has implications for new entrants in the market and generally for the supply of small scale development projects so vital in delivering the housing within infill areas. Established companies have found finance available mainly due to their track record and relationship with the lender:

... because we have a good relationship with the bank we are in a much better position to press the button on the project before other people can. (High density developer)

We are pretty low risk to the banks because we have got a history of successful developments and the good relationships with banks on the back of that. (Infill developer)

Someone else looking to start off or move away from their comfort zone would have more difficulty with the banks. (High density developer)

Banks also have specific lending policies that restrict what infill developers can and can't offer to the market. In particular, minimum floor area targets have significant influence with a number of representatives expressing the view that financiers are very reluctant to participate in proposed projects where a significant proportion of units have floor areas of less than 50 square metres (although the actual figure will vary by location and what is considered acceptable to the market):

We do innovative things all the time and you have to give them a bit of the story. We changed our construction method to something with a pretty good history in Europe and it was fine. We included studios and 44 square metres of these were affordable with all the facilities for \$300 000. What is the issue with the banks with 44 square metres? It is still an issue and most of the banks have a minimum. (High density developer)

... it is difficult to get funding for apartments less than 50 square metres as banks do not like funding small apartments (High density developer)

Similarly, some interviewees thought there is a reluctance for financiers to be involved with new or innovative methods of construction. This is associated with financiers' very close monitoring of construction expenditure throughout the course of the project in the building phase.

Another significant feature of development within this segment emerged in the opinions of several market participants in several states of Australia. This concerned the financiers' willingness to be involved in financing the construction stage provided that the land component of the development was virtually unencumbered. These comments corresponded with a number of comments from developers indicating that when construction works commenced there needed to be focus upon short duration projects. A generally preferred mode for projects was for site acquisition to be accompanied with a relatively long period before settlement so that full planning approvals could be sought without delay prior to the construction phase.

5.2.2 Financing infill development and meeting infill targets

The sector is characterised by fragmented sites and ownership resulting in numerous small development sites (Newton et al. 2011). The challenge for larger developers is to combine these sites into something that offers development at a scale attractive to them. For sites that remain fragmented it is down to the smaller developers, often individuals, to develop at a scale which might be anywhere from subdivision of a single lot to deliver two dwellings up to a 50-unit apartment development. These smaller developers may not be 'professional' developers but individuals wanting 'a crack at development'. Such smaller organisations that concentrate on single schemes due to their capacity limits, and often lack a track record, are those most vulnerable to scarce funding. As one developer stated:

If small developers can't work in the space of 20 apartments then no one is going to do it and the banks are limiting their books and their exposure. It is not going to happen. (High density developer)

Infill housing development is stimulated by price because higher revenues will equal higher profits, all else being equal. Therefore in a rising market there needs to be easy

access into the development sector to deliver a supply of housing in response to increased demand, evidenced through price growth. If potential developers cannot enter the sector and deliver the small scale developments prevalent within the infill space it will be very difficult to meet the sort of infill targets set out in strategic planning documents (Table 9).

For example, in Western Australia for December 2012 there were around 5800 dwelling commencements with approximately 4500 separate houses with the balance being multi-residential, with the exception of around 50 public sector dwellings (ABS 2013a). Assuming these 1250 commencements can all be classified as infill projects, in order to increase such supply by 10 per cent there need only be five new developers commencing projects of 25 units. In contrast, for the same period in New South Wales there were a similar number of separate housing starts but over 9000 total dwelling commencements resulting in well over 4000 infill dwellings, broadly defined. For a 10 per cent increase there would need to be around 16 new developers at 25 units each. In either case access to finance is incredibly important if capacity in the sector is to increase in order to drive an overall expansion of housing supply within existing urban areas.

The potential to increase supply in this space is significant, but only if small scale developers can access the finance required to fund the development. If Perth, for example, is going to meet the 47 per cent infill target outlined in the Western Australian governments strategic planning document *Directions 2013* it needs to increase the current proportion of infill development significantly and this can only be done through the entry into the market of new developers. If finance continues to be a barrier for new entrants, and to those developers who wish to switch from greenfield to infill but don't have the necessary track record in this type of development to satisfy the banks, then it will be very difficult to deliver the level of housing supply envisaged by strategic planning documents.

Table 9: Infill development targets

City	Strategic planning document	Timeframe	Total number of dwellings	Proportion from infill development
Sydney	<i>City of Cities: A Plan for Sydney's Future</i>	2005–31	640,000	60 to 70
Melbourne	<i>Melbourne 2030: A Planning Update—Melbourne @ 5 million</i>	2009–30	600,000	53
South-East Queensland	<i>South East Queensland (SEQ) Regional Plan</i>	2009–31	754,000	50
Perth	<i>Directions 2031 Spatial Framework for Perth and Peel</i>	2009–31	328,000	47
Adelaide	<i>The 30-Year Plan for Greater Adelaide</i>	2010–40	258,000	50 to 70

5.3 High density development

Across Australia there is a shift of emphasis in strategic planning towards higher density living to limit the continuous expansion of metropolitan suburbs, with the associated pressure on infrastructure and services. The expansion of high density living can be demonstrated through ABS Census data (ABS 2013b).

Table 10: High density housing by Australian states

	2006	2011
NSW	70	81
QLD	37	46
VIC	37	39
ACT	10	12
WA	7	11
NT	9	10
SA	4	5
TAS	1	1
Total	175	205

Source: Urbis 2013

Table 10 shows the number of Statistical Area 2⁴ locations that are predominantly medium and high density dwellings. This is an increase of 36 per cent from the previous census. As the cities evolve, governments are providing high density residential zones to manage high rise developments. The strategic framework can focus on urban renewal of private and public-owned land. In several locations, state governments have established specific entities to oversee land developments with high density residential dwellings. This includes Places Victoria—Melbourne Docklands, Sydney Harbour Foreshore Authority—Darling Harbour, and South Bank Corporation—Southpoint. The approach to high density development can be illustrated with a case study of Melbourne Docklands, Victoria.

5.3.1 Melbourne Docklands, Victoria

Located adjacent to the Melbourne CBD, is the successful Docklands urban renewal project, centred around the banks of the Yarra River. The waterfront redevelopment covers approximately 190 hectares—nearly one quarter of which is water. This makes the Melbourne Docklands approximately the same size as the Melbourne CBD.

Historically, at the beginning of the last century, Melbourne Docklands was handling an estimated 90 per cent of Victoria's imports. Port activity started to decline in the 1960s and in the late 1980s the government land was largely disused and had fallen into disrepair. In 1991, the Docklands Authority (now Places Victoria) was established to oversee the area's renewal with the task of creating a development that would extend the western edge of the Central City enhancing the connection with the waterfront.

⁴ Statistical Areas Level 2 (SA2s) are defined by the ABS as medium-sized general purpose area built up from whole Statistical Areas Level 1 (SA1s). They replace the Statistical Local Areas (SLAs) defined by the Australian Standard Geographical Classification (ASGC). Their aim is to represent a community that interacts together socially and economically.

After periods of consultation and changes of state government, a consortium of leading property developers tendered for mixed use development opportunities in defined Docklands precincts. Table 11 below details the Docklands precincts and the successful development consortiums.

Table 11: Melbourne Dockland precincts: Leading property development consortiums

Docklands precincts	Property developer
New Quay	MAB Corporation Consortium
Victoria Harbour	Lend Lease Consortium
Yarra Edge	Mirvac Group Consortium
Waterfront City	ING
Digital Harbour	Digital Harbour Holdings

Source: VicUrban 2009

Table 11 illustrates the integration of leading Australian property developers into one of Australia's largest urban renewal projects. As at 2012, Melbourne Docklands had attracted \$8.5 billion worth of private investment, 7000 residents and 29 000 workers. In approximately 10 years, the completed Docklands is expected to have attracted in excess of \$17.5 billion of private investment and be the home to an estimated 20 000 residents and 85 000 workers.

Apartments make up an estimated 97 per cent of the Docklands dwellings with the remainders townhouses. Predominately along the Docklands waterfront, the apartments comprise five to 10 level mid-rise apartment complexes and high rise developments, with Victoria Point being the highest at 128 metres—42 floors. The apartment towers are built with a 'podium' base. Along with retail shops, the podiums generally accommodate car parking for building tenants, as it is more cost effective than basement parking due to a high water table and the soft nature of the Docklands soil.

The designs of the residential apartments follow the Docklands master plan, with each development footprint meeting defined floor areas and height overlays. Flexibility is provided and each development is examined on a case-by-case basis within Local and state government planning guidelines. In defining the precincts, the selected property development consortium can be required to provide human services and public space, for example Docklands library, parks and children's playgrounds.

For the development of residential apartments, Places Victoria provides development agreements for the land which define the terms on which the development is undertaken including payment and timing requirements and sunset date(s) for project completion. Capital controls for the property development lies with the developer, although project financial viability needs to be established at an early stage as a condition of the Development Agreement.

Financing arrangements can vary with each of the residential development projects with developers responsible for arranging project finance. Any commercial financial arrangements under the Development Agreements vary between the Docklands precincts. Payments may be made either at the beginning or end of the project depending on the commercial arrangements in place. Development Agreement financing options can limit the property developer's upfront costs. The transfer of the land title is completed when the conditions precedent to the development agreement have been successfully achieved.

Specific lending covenants are connected to the project construction. This extensively depends on the property developer's structure and size and their requirements to external financial sourcing for specific residential developments. Major property organisations commonly adopt a 'multi option facility' (MOF) offering a degree of financial flexibility compared to property developers funding stand-alone developments as a 'special development vehicle' (SDV). These aspects are separate to the land development agreement and are commercially sensitive.

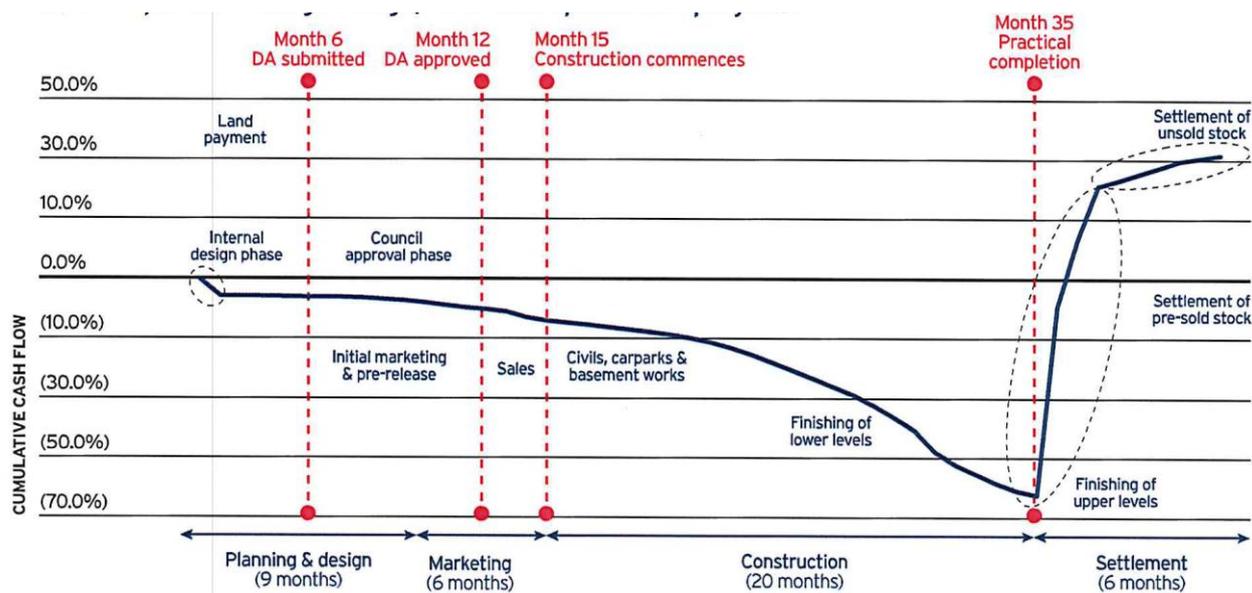
As an overview of the Melbourne apartment market, at the SDV construction phase, Australian bank senior debt is typically capped at 70 per cent loan to value ratio. The minimum pre-sales requirement is generally 100 per cent of the debt, with foreign sales at 20–25 per cent limit. In providing this information, there are reports that foreign banks provide more flexibility with higher foreign sales especially to overseas residential developers with whom they have a past relationship.

In dividing Docklands into precincts, the successful developer consortiums can manage staged residential and commercial developments. Mirvac Group is developing the Docklands precinct south of the Yarra River. The Yarra's Edge precinct when completed will cover 11 apartment towers, costing approximately \$1.3 billion over 15 hectares.

The sixth tower in the Yarra's Edge precinct was completed in early 2013. Yarra Point has 201 apartments over 31 levels with extensive water views and overlooks one-hectare Point Park. The selling price range was \$500 000 to \$2.4 million for one-bedroom to three-bedroom apartments and the penthouse suites. At the time of the apartment launch, pre-sale targets were achieved within a two-month marketing period. There is an even mix of investors and owner occupiers in the residential apartment complex.

As major residential developments are capital intensive and take considerable time, project finance is an important component of the development. Figure 14 below is a Mirvac Group illustration of the financial characteristics for a generic single stage, 200 residential apartment project.

Figure 14: Residential apartment development project: Financial characteristics



Source: Mirvac 2012

Figure 15 details the stages and cash flow implications for a 3.5-year residential development project. While marketing and sales of the residential apartment occurs before the expensive construction stage, settlement is afterwards on practical completion. Managing building costs and time administration is critical over the 20 months construction stage to provide the defined returns on the residential property development.

5.4 Affordable housing development

This case study examines the financing of affordable housing. In this case we use a very specific definition of the term 'affordable housing' (Milligan et al. 2004, p.5), referring to a specific type of housing that includes the following attributes:

- Initiated and owned by non-government not-for-profit providers.
- Financed through a mix of public subsidies, planning benefits, private equity and/or debt finance.
- Priced at below market rents.
- Restricted to moderate and/or low income client groups.

The role of not-for-profit housing providers has been growing in importance in Australia. In recent times, various national and state governments have championed the role of the sector and they have been the beneficiary of sizeable stock transfers from SHAs. For example, the Federal Minister for Housing (Plibersek 2009) in the first Rudd Labor Government stated that:

... the centrepiece of the government's reform agenda is to facilitate the growth of a number of sophisticated not-for-profit housing organisations that will operate alongside existing state-run housing authorities.

This view was shared by the New South Wales Minister for Housing at the time who stated:

... by transferring the ownership of our properties to the community housing sector, we give them the ability to borrow funds to build and buy more homes. The fact that they own the homes gives them greater leeway in securing private investment. (Borger 2009)

The research of Milligan and her colleagues has tracked the development of the not-for-profit affordable housing development sector as it has gained momentum in Australia. Their first report (Milligan et al. 2004) identified that the number of active organisations and their property portfolios were extremely small, with the seven largest providers having developed around 1200 units of affordable housing over the preceding decade. In their second report five years later (Milligan et al. 2009, p.12), they concluded that:

... since the previous study, the affordable housing businesses of not-for-profit providers in Australia have developed in scale, complexity and maturity. There are now more and larger organisations undertaking housing development using a range of financing, procurement and design approaches.

The second study identified 11 established developers already procuring at modest scale. At the end of 2007–08, the 11 established providers owned over 5440 dwellings and had plans to finalise procurement of at least another 2330 in the near future. This represented about a 220 per cent growth in stock under the control of the leading 11 players since 2004. This group of developers had a net asset worth of just under \$1.3 billion in 2007–08.

This growth was associated with providers gaining access to some type of public finance, most notably the provision of a tranche of equity finance provided by the Victorian Government.

A later project by Wiesel et al. (2012) also comments on the growth of the sector stating the advent of the National Rental Affordability Scheme (NRAS) in 2008 and the Social Housing Initiative (SHI) in 2009 have provided further impetus to the development of additional affordable housing by this sector.

The same report provides some examples of some typical projects in a number of states. The projects tend to be of moderate scale of around the 30–50 dwellings scale. It is very difficult to obtain finance for larger projects. In the majority of cases the projects are 100 per cent affordable and are held by the Community Housing Provider (CHP) as rental projects. However, led by the success of the Brisbane Housing Company, who have undertaken a range of mixed developments with at least some of the dwellings for sale into the private market, CHPs are exploring this form of development. CHC Canberra, with good access to cheap government debt funds, but little initial equity, has used a mixed development model to significantly expand their portfolio over the last five years. Their most recent project, Eclipse at Bruce in Canberra, consist of 232 dwelling units built in a number of stages.

After a surge in completions by the sector across the period 2009–12, with the completion of the Nation Building program and the tighter fiscal environment in Australia it has been difficult for CHOs to maintain their development momentum. Looking back, it is clear that the affordable housing supply delivered by the not-for-profit sector over the period from 2005 are directly related to the sector's ability to obtain finance.

5.4.1 Finance and the affordable housing sector

One feature of affordable housing finance in Australia is that there is not a clear policy framework that supports finance for the affordable housings sector. This point is well made by Lawson et al. (2010, p.3).

Unlike many other similarly developed countries, Australia has not yet established a robust policy and institutional framework to attract and direct public and commercial funds towards the provision of additional affordable housing, despite having a well evidenced need for this. Encouraging an adequate flow of investment into the supply of affordable housing in Australia is a major challenge for all governments and for the housing industry.

Instead finance is raised by a number of means including:

- Use of own funds from accumulated operating surpluses including in some cases from market development projects.
- Use of funds from government grant programs, most notably City West in New South Wales and BHC in Brisbane.
- Debt funds from government for example. In the ACT, providers have access to a debt financing package from the ACT Government. A \$70 million (\$50 million + \$20 million) loan facility is available to the largest CHO in the ACT—CHC Affordable Housing. The loans are made available at the 90-day bank bill swap rate on the first day of each quarter. The facilities are subject to quarterly interest only repayments for 10 years. The applicable weighted average interest rates for the \$50 million and \$20 million facility for the 2012 financial year were 4.92 per cent and 4.13 per cent respectively.

- Debt funds from first and second tier banks⁵.
- Seeking equity funds through on-selling properties to investors under NRAS.⁶

An outcome of this relatively unstructured financing model, is that private debt finance is expensive for not-for-profit providers. Deloitte, in a project funded by the Community Housing Federation of Victoria, surveyed the main CHOs in Victoria. They concluded that:

All the CHOs surveyed had taken on debt to fund new housing, although the average loan-to-valuation (LVR) ratios vary substantially, from 12 per cent to 65 per cent. The borrowing rates faced are less varied, with organisations paying between 7 per cent and 8.5 per cent with an average reported rate of 7.2 per cent pa. This represents an average premium of about 100 basis points over standard variable rates charged to large businesses, or about 30 basis points over a BBB-rated corporate bond yield (RBA 2012). (Deloitte— Access Economics, 2011, p.9).

Milligan et al. (2013a) confirm these Victorian findings in other jurisdictions. These financing arrangements place constraints on the sector's ability to expand the supply of affordable housing and highlight the need for a broader policy solution to address this issue. A particular issue highlighted by both Milligan et al. (2013a) and McCarthy and Pringle (2013) was the short term nature of loan agreements leading to considerable transactions costs and refinancing risks for the CHOs.

5.4.2 The approach of banks to lending to affordable housing providers⁷

The major banks can see a range of positive attributes in the affordable housing sector including:

- non-cyclical stable earnings
- relatively high tangible assets
- reinvestment of profits for growth
- implied government support through policy
- governance and independent oversight through regulation
- alignment with their social responsibility charter.

However, there are also a range of challenges:

- access to efficient, flexible funding for growth
- relatively low earnings
- a lack of scale
- inconsistencies in government policy direction
- a lack of skilled professionals from the private sector in some cases

⁵ For example in their most recent Annual Report, BHC reports a \$30 million Westpac Loan Fund and CHC Affordable Housing reports executing a commercial loan facility with Westpac Banking Corporation (\$25 million) for the construction of its new Eclipse development.

⁶ Again, BHC has probably been the most active in this space. See for example its brochure pitching to small investors at <<http://www.bhcl.com.au/assets/NRAS/BHC-NRAS-Brochure-July-2012-Low-Res.pdf>> although CHC Canberra is also seeking investors for its most recent Eclipse development.

⁷ This section is based on a seminar delivered by McCarthy and Pringle (2013) and interviews with senior bank officials.

- the difficulty of recovering loan funds because of the inability to evict low income tenants.

The ideal borrower is seen as a CHO with an emphasis on sustainability, with an experienced professional management team and an independent board with a relevant mix of skills. The CHO must also be focused on transparency and disclosure and have the appropriate approvals from the existing regulatory system. The bank will need to see a strategy to manage interest rate volatility and usually place a covenant on the loan that sets a minimum interest rate cover.

In the words of a property loan officer from a major bank:

We are getting to know the affordable housing sector and we can see some future opportunities in the sector, but we need to understand their cash flows in greater detail because we won't be in a position to recover properties if loans get into trouble.

As a result loans are primarily based on available operating cash flows. This restricts the LVR on most developments. This means that the potential of not-for-profit providers to leverage off public sector assets that they have received from SHAs is limited because of the low incomes of their tenants. The size of the positive operating cash flows in their businesses are not large enough to support significant private sector debt finance. This suggests that some of the previous optimism about the ability of stock transfer to 'leverage' significant new housing supply has been misplaced, especially when the available finance is ad hoc and expensive.

The major banks are getting less concerned about the impact of affordable housing within a market development as they get to know the sector better. While there are some concerns about market risk, this has largely been overcome by the successful development outcomes for large mixed use developments undertaken by the Brisbane Housing Company and CHC Canberra. Both those organisations have been able to secure large debt funds from a variety of first and second tier banks. However, this issue might still be a concern in particular projects, especially when the bank has no comparable projects to price the marketing risk.

5.4.3 The impact of the GFC on affordable housing providers⁸

While the GFC generated very negative outcomes for many developers, there has been a mixed impact on affordable housing developers. On the negative side, loan terms have shortened exposing providers to increased transactions costs and refinancing risks. On the other hand, providers have also had the advantage of the nation building scheme which has strengthened their balance sheet as well as improved their development experience. Moreover, for affordable housing developers with existing variable interest loans, the lower interest rates available since the GFC have had major positive impacts on their interest costs.

5.4.4 Affordable housing finance examples

In order to understand the range of financing strategies for CHOs, three recent projects are described below. The first project is a high rise development in Melbourne, which was featured in a previous AHURI study (Milligan et al. 2013a). Note that the name of the development has been changed to maintain privacy. The second project is a medium density in-fill project in Western Australia. It uses a range of mechanisms to reduce the debt exposure of the CHO. The last project is a high rise

⁸ This section is based on a seminar delivered by McCarthy and Pringle (2013) and interviews with senior bank officials.

apartment building constructed by City West Housing in Sydney. It is unusual in that no debt financing was required for this project.

The Barwon—Melbourne

The Barwon is a project examined in detail in Wiesel et al. (2012 pp.42–45) and is located on a busy commercial strip in a metropolitan inner city location with excellent access to shops, public transport and services. The site is approximately 0.13 hectares, has a street frontage to the north, and is neighboured by buildings ranging from two to 11 storeys in height. The project comprises two main buildings. To the north of the site, fronting the street, there is a two-storey early 20th Century commercial building. To the rear of the commercial building has been inserted a new-build seven-storey apartment building. This apartment building is accessed from a side laneway, and has two lifts providing access to all levels. On the ground floor, there is a cycle lock-up and communal room for resident meetings and gatherings. Levels 1–7 are purely residential in use; they provide a total of 71 dwellings—36 (50%) of these are self-contained studio units, 12 are one-bedroom units (17%) and 23 (32%) are two-bedroom units. The project was completed in 2011.

The project was financed with a mix of government grants (75%), a commercial loan (20%) and other equity (5%) which included a small donation and internal surpluses and reserves. The loan has a 25-year term and a variable interest rate. The rate was higher than the rate charged to large businesses. At the start of the project, debt servicing costs were significant but manageable at around 55 per cent of net rental income. However, the decreases in interest payments since then would have reduced the debt load considerably.

The project demonstrates how large government grants are needed to be able to finance large affordable housing apartment developments with 100 per cent retention for affordable housing.

Eaton project—near Bunbury in Western Australia

This project was developed by Access Housing in Western Australia. Details of the project were extracted from the company's 2012 annual report (Access Housing 2012, p.14). The project is a \$5.5 million project of 25 senior villas (inclusive of land cost) which is being delivered in two stages. The project is an excellent example of packaging together different funding streams and offsetting finance costs. It is a 50:50 joint venture between a local builder and Access Housing.

- Eight stage 1 dwellings were pre-sold at a 20 per cent discount to the Department of Housing to reduce the debt exposure of the JV partners. The department will on-sell these dwellings using its shared equity product.
- Thirteen stage 2 dwellings with NRAS incentives attached are being sold into the investor market. These sales are a house and land contract, whereby the investor purchases the land component up front and then makes progress payments direct to the builder during the construction, limiting the debt exposure to the JV parties. This mechanism demonstrates the financing benefits of this sort of housing type compared to apartment developments whereby no sales revenue is available to the developer until a certificate of completion is issued.
- Access housing is applying its share of the profits to purchase the remaining four dwellings and retain these for social and affordable rentals.

Access Housing's maximum debt exposure on this \$5.5 million project is only 1.3 million.

35 O’Dea Ave Zetland—New South Wales

The total cost of this project was \$19.3 million. It was entirely equity financed by City West Housing who are in the unusual position of having an income stream from residential and commercial development contributions in the City of Sydney. They also have a policy of housing low, medium and high income tenants and, as a result, also generate a considerable surplus on their rental operations. In their most recent annual report (2011–12) they note that they received \$6.2 million from this source as well as interest payments of \$4.1 million, largely based on the interest paid on their accumulated developer contributions.

This source of funds means that no debt financing is required. However, it also means that it takes some considerable time to accumulate enough funds to begin the construction of a new project. In recent years there has been about a three-year gap between project completions. City West currently has developed 547 dwellings which they have retained in their rental program, with about another 200 dwellings in the pipeline due for completion in 2014–15.

6 POLICY IMPLICATIONS

Residential finance lending policies are defined and implemented by the lending institutions themselves. In this respect housing and urban policy-makers are largely powerless to directly influence finance outcomes. Banks and other financial institutions will base their lending decisions around an organisational strategy and if a development project meets the risk to return assessment of the institution, and fits with this overall strategy, then the bank will lend to the developer. However, there are ways that policy-makers can influence the potential risk of a development and make lending to residential projects more attractive. Thus policy-makers can indirectly influence funding strategies and potentially address finance as a blockage within the development process.

This chapter discusses seven potential policy implications drawn from this research.

6.1 All developers are different

This report highlighted the range of developers active in the Australian housing supply sector and the differences between developers in terms of accessing finance. The larger, publicly listed companies, including those with a REIT structure, seem to have few difficulties securing finance. Major, national developers focusing on greenfield development have largely been unaffected by finance constraints, although there are exceptions due to some lenders reducing overall exposure to this type of development and in specific locations. In contrast, smaller developers working on smaller scale projects, often of an infill nature requiring project specific funding, were experiencing much more difficult conditions.

Variation in the size, organisational structure and operational characteristics of developers is important from a policy perspective because different types of developers will respond differently to a range of policy settings. For example, a policy making the purchase of new apartments exempt from stamp duty may be positive for a smaller scale, infill type developer who may see demand rise, but may have a negative impact on a land developer. If policy-makers want to stimulate housing supply in a particular housing sector then they need to be aware of the type of developers operating in that space and introduce policies that will have the maximum impact on that particular type or scale of developer.

6.2 Understanding development feasibility

Policy-makers need to understand just how their decisions affect residential lending. Policy settings influence potential development returns and the perceived risk of development. Section 3.2 of this report explained how development feasibility is calculated. This stage of the development process determines whether a development scheme is potentially profitable, if it is not then the scheme will get little further than an excel spreadsheet let alone reach the development approval stage. If the developer does consider the scheme potentially profitable they then have to persuade the bank to make the funds available. The bank will also look closely at the potential scheme profitability and also the level of risk involved in lending. If the risk is considered too high the lender may refuse to lend or impose loan covenants which may not work for the developer.

Any variable that reduces uncertainty within the development process will have a positive impact on the way a lender assesses a potential development project. Decisions that make development more profitable will also have a positive impact on the chances of that development going ahead. By creating the conditions for profitable, low risk, development, policy-makers are increasing the potential for

housing supply. Any decision that adds to uncertainty, costs or reduces revenue will have the opposite affect and reduce the potential for housing supply.

As an example, from the developer's perspective strategic planning decisions should take into account development viability and ensure that policies that will make development unprofitable, for example density restrictions or imposing minimum heights in low value areas, are avoided. If policy-makers are aware of how developers make decisions then they can help deliver plans that are likely to maximise housing supply. The greater the chances of profitable development the lower the risk and the greater the probability of banks being willing to lend on development projects. Policy-makers therefore need to be aware how their decisions can affect potential revenues, costs, risk and profitability within a development.

6.3 Impact of funding constraints on urban policy

Post GFC the major supply constraints generated by a lack of access to finance have been in the small infill development sector, particularly for those developers operating in the lower land value sections of the city providing dwellings at the more affordable end of the scale. Many of these 'developers' have returned to their other occupations because they are now unable to access finance. These small in-fill developers often have lower profit margins and often use family labour chains to reduce construction costs. As a result they are able to deliver affordable housing opportunities. A second impact has been the increased focus on pre-sales, especially for pre-sales with a larger deposit. This has restricted access for first-home buyers seeking an affordable product in the new dwelling market. It is likely that these two trends acting together will have reduced the access of moderate income households to the new dwelling market, outside the traditional greenfield development opportunity.

The importance of residential finance is likely to increase over time as strategic policy focuses on infill dwelling supply and the traditional greenfield development dominated by the separate house becomes a smaller component of total new dwellings built in Australia. Traditional greenfield developments are constructed in stages and do not require the level of construction finance required for apartments, for example. Peak debt exposure for a 100-unit apartment complex is significantly higher than for a 100-unit lot development.

Policy-makers therefore need to create the conditions that enable developers to deliver profitable, low risk development. This is through certainty in the development approval process, avoiding delays and unnecessary complications; equitable infrastructure charging and flexibility around issues such as parking requirements which can add significant costs to developments and render them unprofitable. Reducing risk and creating such an environment will make such lending more attractive to financial institutions.

6.4 De-risk schemes through joint ventures

Linked to the above, local and state government can aid developers where possible by creating joint ventures to help reduce potential development risk, again making a scheme more attractive to potential lenders. Joint ventures could be structured in a number of ways and there are existing examples all over the country but particularly in Western Australia through initiatives of the Department of Housing. Such initiatives include the use of government-owned land; government guarantees to purchase unsold units; pre-sales to government and direct profit sharing partnerships. Such joint ventures can not only help government meet their housing targets and deliver a range of affordable housing outcomes but can make developments than lenders may not

previously have funded feasible and help grow the track record of smaller developers considered so important by financial institutions.

6.5 The not-for-profit sector

There has been considerable work discussing ways to attract institutional funding in the not-for-profit and private rental sectors. Work by Lawson et al. (2010, 2012, 2013) and Milligan et al. (2013a) identifies a number of ways in which institutional involvement in both sectors would have positive housing supply outcomes. Attracting institutional investment into the area of affordable housing would have numerous positive outcomes for both the development sector and end consumers. Any policy measures that facilitate such institutional involvement would be a significant step forward.

If there is a political will to increase new housing completions by the not-for-profit sector in Australia, then the sector will require significantly improved access to residential finance. Current completions by the NFP sector in comparison to many other OECD countries are very limited and unlikely to change unless better financial mechanisms are developed (Lawson et al. 2010). Many community housing organisations are developing housing on a relatively small scale through leveraging their existing assets. The more assets they have to leverage against the more money they can borrow and the more units deliverable. This is a powerful argument for the further transfer of state housing assets to the community housing sector which can concentrate on growing the sector through efficient use of the publicly-owned housing stock to leverage the necessary finance for expansion.

6.6 Demonstrating the potential of alternative housing products

Alternative models of housing supply and ownership through community land trusts and shared equity schemes, for example, have the potential to deliver positive outcomes. One of the barriers to growth in this area is a reluctance of banks to lend money to alternative products. It is up to government to demonstrate that such models are effective and can be low risk investment opportunities. The Department of Housing in Western Australia have their Keystart low deposit scheme and shared ownership home loan scheme that have been successful in helping thousands of low to moderate income individuals and families into home ownership. Lending to individuals who might not otherwise have been able to access the private market, the Government of Western Australia has demonstrated that such lending is low risk and has positive social outcomes. There is a powerful argument for the adoption of similar programs elsewhere. The success of shared ownership schemes should encourage the private sector to explore how they could develop such schemes enabling access to market housing that would previously have been unavailable to many households. Innovation needs to come from government because of the reluctance of developers to take on projects with perceived high levels of risk and, more importantly, the reluctance of lenders to finance projects with such additional risk.

6.7 Involving the financial sector in planning reform

Given the key role of residential finance in delivering new housing supply and the objective of planning reform in many states is to increase the supply of new housing, it is important to include the residential finance sector in planning reform consultations. There is not a lot of evidence that this has occurred to date in Australia. For example, what aspects of the planning system create the most uncertainty and therefore have a negative impact on risk and how can they be removed? How can the system be made more certain to reduce the potential for delays and the associated cost impact on

profitability? Reducing risk will not only lead to more positive lending decisions but might also have an impact on the loan covenants imposed on developers, again making development potentially more profitable.

Although policy-makers are powerless to influence the strategy and institutional practices of financial institutions, the discussion above highlights how they can potentially increase housing supply through creating the conditions where finance is less of a barrier to housing delivery. Understanding how finance decisions are made and how developers make decisions is a vital step in creating the policy conditions that will have a positive impact on housing supply.

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APPENDICES

Appendix 1: List of interviewees

Role in organisation	Type of organisation	Location	Date
Managing Director	Large listed developer— Greenfield	Perth but also operate nationally	November 2012
Managing Director	Large private developer— Greenfield	Perth	August 2013
General manager	Medium private developer— high density infill development	Perth	August 2013
Development manager	Community Housing Association	Perth	July 2013
Managing Director	Medium private developer— medium density infill development	Perth	November 2012
Chief Operating Officer	Large listed developer— Greenfield	Perth but also operate nationally	November 2012
Development manager	Large listed developer— Greenfield	Perth but also operate nationally	November 2012
Regional manager	National bank	Perth	November 2012
Chief economist	National bank	Perth	November 2012
Senior Development Manager	Large private developer— Greenfield	Melbourne but also operate nationally	October 2012
Finance Consultant	Large private project manager— high-rise developments	Melbourne	October 2012
Managing Director	Medium private developer— medium density infill developments	Melbourne	October 2012
Managing Director	Small private developer—small multi-unit infill developments	Melbourne— specific suburb	October 2012
Director	Independent finance broker	Melbourne	October 2012
Director	Small private developer— suburban infill	Sydney	October 2012
Director	Medium private developer— medium density infill developments	Sydney	December 2012
Director	Medium private developer— medium density infill developments	Sydney	November 2012
Director, Property Finance	National Bank	Sydney	October 2012
Property Finance officer	National Bank	Sydney	March 2013
CEO	Not-for-profit developer	Sydney	October 2012
Development Manager	Community Housing Association	Sydney	November 2012

Appendix 2: Glossary of common finance terms

Special Purpose Vehicles (SPV)

For property developers, separating projects in separate entities, provides a logical structure for legal and financial purposes. This 'stand-alone' entity is commonly referred to as a Special Purpose Vehicle (SPV). It provides the structure for agreements and contracts between lenders, developer and other interested parties and is the arrangement for financial payments.

Multi Option Facility (MOF)

Consists of an overall debt limit that may be made-up of a number of assets. The MOF offers a degree of flexibility above that received for a single asset debt facility. The benefit of having an MOF is there is no need to renegotiate the contract each time you sell/acquire an asset. Provides major property organisations with an investment and development portfolio to a funding opportunity with assets forming a range of risk profiles.

Loan to Value Ratio (LVR)

The percentage of end development value that forms a basis of how much a lender will advance to a developer. For example, if a project has an end value of \$10 million, and the bank has an LVR limit of 80 per cent, then the maximum that will be lent is \$8 million. This ratio offers protection against projects where end revenue outcomes are well below those expected. The higher the loan to value ratio, the higher the risk to the lender. During the GFC, many lenders lowered their LVR from 80 per cent to 70 per cent, this limited debt in the example to \$7 million and so requires additional \$1 million equity if the project has an end value of \$10 million.

Loan to Cost Ratio (LCR) or Loan to Development Cost (LDCR)

The percentage of the development building cost (excluding developer profit) that forms a basis of how much a lender will advance to a developer. For example, if a project has an end value of \$10 million, a building cost of \$9 million and has an LCR limit of 80 per cent, then the maximum that will be lent is \$7.2 million. This ratio protects the lender from an increase in building costs. If the LVR limit was lowered to 70 per cent, then the maximum loan would be \$6.3 million on the example above.

Development margin

The development margin is the percentage return of net profit divided by total development cost. For example, if a building costs \$9 million and the end value (less fees etc.) is \$10 million, then there is an 11 per cent development margin.

Internal Rate of Return (IRR)

An important measure of investment return, is the discount rate that produces a net present value (NPV) of zero. If the IRR is above the developer's target rate of return a project would be regarded as profitable. The IRR takes into consideration assumptions on the effect of time, incomes, costs, end development value and a discount rate. Lenders particularly examine the forecast end development value, discount rate and interest rate with input sensitivity analysis. IRRs will vary depending on location and developments.

Equity IRR

When projects are funded using a mix of equity and debt, the equity investor would like to estimate the rate of return on equity, after debt costs and payments are removed. Hence equity IRR is essentially the leveraged version of the project IRR. If

the project is 100 per cent debt funded, then no equity IRR will exist. Where the project IRR is greater than the cost of finance, the equity IRR will exceed the project IRR. Where the project IRR is less than the cost of finance, the equity IRR will be less than the project IRR.

Gross Realisable Value (GRV)

This is the gross amount of sales a development could achieve. For example, if you have 20 units to sell at \$500 000 each, then your GRV would be \$10 million. Importantly, where applicable, goods and service tax (GST) is deducted to achieve the GRV.

Net Realisable Value (NRV)

This amount is the net value of sales; less the amount of GST (if applicable) paid on sales, less any selling costs (commissions paid to real estate agents). For example, if you have 20 units to sell at \$500 000 each, then your GRV would be \$10 million and if selling costs are 5 per cent, then the NRV is \$9.5 million.

Interest cover

Interest cover is equal to earnings divided by finance costs. An example of this is where the rental return is \$150 000 per annum and the interest on the loan is \$100 000 per annum, the interest cover is 1.5 times.

Equity

Equity is an important property development finance component. It offers property ownership with returns based on the property development less costs that include debt financing—for example, if a project has an end value of \$10 million, building costs of \$9 million and a debt of \$7 million. The initial \$2 million equity increases to \$3 million on the successful completion of the development.

Senior debt

This is the main loan category on a property development project. Depending on the specific development and market conditions, senior debt is usually available up to 70 per cent of completed project value (or 80% of project costs). Senior debt together with a mix of either (or both) of mezzanine and equity funding provides 100 per cent of the project cost.

Mezzanine finance

This represents the debt financing of a project above the senior debt limit and is usually at a premium rate of interest—for example, if a project has an end value of \$10 million, building costs of \$9 million and senior debt of \$7 million. If available initial equity is \$1 million, then mezzanine finance of \$1 million is sourced to bridge the gap between project cost of \$9 billion and the senior debt and equity of \$8 million.

Risk mitigation

This is the opportunity to limit an exposure to possible property development risks. This can include improved identification and measurement of property development risks alongside the management of risk with improved knowledge, insurance and the possible transfer risk—joint ventures.

Interest only loan

Finance for property developments generally operates as interest-only. This is a property-backed loan where none of the principal sum is paid back until the end of the loan period. The borrower only paying interest on the loan.

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