

# The Australian real estate capital markets – is there an emerging “gap”?

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## Executive Summary

One of the key features to emerge from this most recent cycle is that the depth and availability of credit previously available cannot be assumed going forward. The prior major participants in the real estate debt finance market are now severely capital constrained – this has had a direct impact on real estate equity values.

The combination of asset write-downs and investment de-leveraging has resulted in the requirement to significantly recapitalise the real estate sector. In reviewing the size and composition of the four quadrants of real estate investments (public, private, debt and equity) we have forecast that an additional investment of \$28 billion of new capital will be required over the next 12 to 24 months.

We are of the view that this capital will take the form of a combination of investment types including equity, preferred equity, convertible notes, bond issues and secured lending. This means there is enormous scope for investors to choose where they would like to be positioned in the real estate capital stack to most optimally deliver their stated risk/return objectives.

Our analysis anticipates and accounts for a material decline in asset values as well as further decline in the supply and availability of bank debt from today’s levels. Accordingly, we believe a focus on capital preservation will be the key to successful real estate investing over the short to medium term.

## Introduction

Superannuation fund investors and managers have for a long time invested in real estate as part of their asset allocation in the belief that it provides the following attributes:

- Relatively high and stable income returns from long dated contractual cash flows
- Attractive total returns
- Diversification to stocks and bonds
- Hedge against inflation
- Long term sustainable demand
- Inefficient markets allow superior relative value opportunities

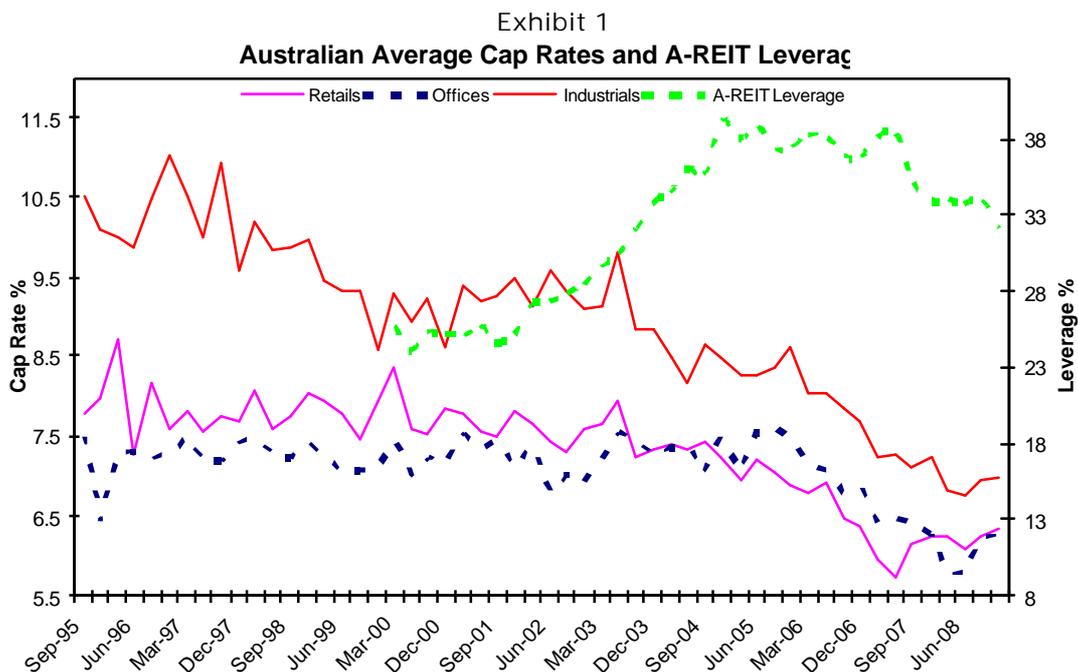
The expanding range of investment products offers new opportunities and challenges to real estate investors and managers. The menu of real estate investment choices in Australia (core, core plus, value add, opportunistic) is lengthening rapidly, however, the recent financial crisis has demonstrated that the inherent real estate attributes that investors and managers are seeking do not apply to all real estate investment vehicles through the cycle.

In order to establish a coherent platform to construct and manage real estate portfolios across all real estate-related financial markets: public and private, debt and equity we have adopted the four quadrant investment model.

To date real estate investing in Australia has focused largely on the equity real estate component. The current market dislocation provides a prism through which we can witness “real time” the interconnectivity of the real estate capital markets and the relative value offered by each of debt or equity. Moreover, the four quadrant model provides a framework which can be used to evaluate the current market in terms of relative value in order to better position investments based upon where we are in the economic cycle by orientating capital offensively or defensively as the market dictates.

## Market Overview

Over the last five years there has been a significant growth in property values. The wall of capital that was chasing real estate investments through the mid part of this decade led to a highly competitive marketplace which bid down capitalisation rates. Because of the compression in cap rates, investors turned to increased leverage and highly structured deals in order to maintain nominal returns (i.e. investors were taking on higher risk without the commensurate increase in returns).



Sources: GSJBW, IPD

As the credit crisis hit, the market began the process of un-winding these structures and de-leveraging the high levels of debt within the system. This has led to a widening of cap rates as risk aversion re-enters the market and the availability of cheap capital dissipates.

On average, cap rates would need to expand by 175 basis points in total to return to historical norms, however, we believe secondary markets and sectors will increase by more than this as shown in Exhibit 2.

Exhibit 2  
Forecast Cap Rate Moves 2008 – 2010

Property Type	2008 (%)	2010	Change (bps)
Regional Malls	5.25 - 6.00	7.00	100 - 125
Sub-regional Malls	6.25 - 6.50	8.75	225 - 250
Neighbourhood Shopping Centres	7.25 - 7.50	10.00	250 - 275
Office – Premium & A Grade	6.25 - 6.50	8.00	100 - 125
Office - B Grade	6.50 - 7.00	9.00	125 - 175
Industrial	7.00 - 7.25	9.00	175 - 200
Warehouse & Storage	7.50 - 7.75	10.00	225 - 250

Source: IPD, GSJBW Research, Quadrant

In addition to adverse movements in cap rates we expect property values to be further impacted by increasing vacancies and decreasing rents through 2010 and 2011. That said, in general the real estate markets entered this credit driven downturn in relatively good shape in terms of fundamentals.

In comparison to the last major downturn in the early 1990's, vacancies are currently low, new supply in most markets is muted and pre-crisis rental levels and capital values had not increased as significantly as they did prior to the previous downturn as illustrated in Exhibit 3.

Exhibit 3  
Comparison of Australian Property Cycles 1990-93 and 2008-2010

Sector	Indicator	Peak	Trough	Peak	Trough
		Sep-90	Dec-93	Mar-08	Jun-10
		%	%	%	%
Office	CBD Vacancy*	11.4	20.3	5.5	10.5
	Yield (CBD Prime)	6.9	8.4	6.5	8.0
	Capital value growth**	58	-44	33	-20 to -25
Retail	Yield (Regional)	8.25	8.0	6.0	7.0
	Capital value growth**	40	-5	27	-5 to -15
Industrial	Yield (Prime)	9.4	11.2	7.0	9.0
	Capital value growth**	30	-30	17	-25 to -30

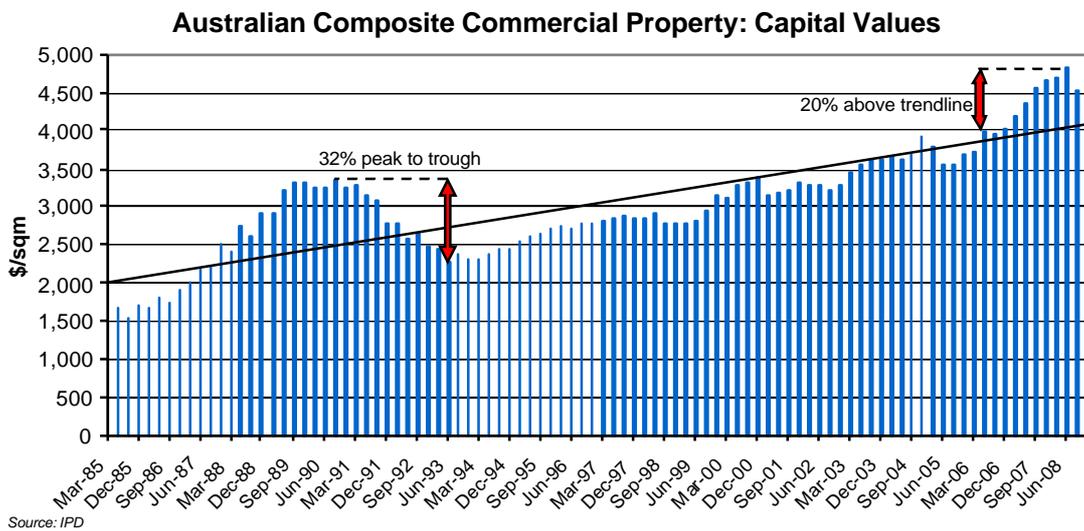
\*Year end

\*\*Three year change

Source: Jones Lang LaSalle, ABS, RBA, PCA/IPD

As illustrated in Exhibit 4 below, prior to the last major downturn in the early 1990's the real estate market valuations on average peaked at approximately 27% above trendline values. By the time the trough was reached in December 1993 values had over corrected to the down side by dropping 32% from peak to trough. Using the same methodology property values in this current cycle peaked on average at approximately 20% above trendline values.

Exhibit 4



Accordingly, a reversion of at least 20% in values will be required to bring property values back to trend. To date we estimate an average decrease in property values in the order of 15% (to June 2009) from the peak, however, despite the large amount of stock on the market (formally and informally) the bid/ask gap between buyers and sellers is limiting the volume of transactions occurring - meaning the actual decrease is difficult to accurately quantify at this stage.

In addition, we believe that there is a risk that the markets will “overshoot” on the downside (as occurred during the previous downturn) due to continued negative sentiment, a greater than expected economic deterioration and/or capital being constrained for longer than expected. In any event, we believe that values have further to fall over the next 12 to 24 months. In our view the markets will overshoot on average by approximately 5% - meaning a total average decline from peak to trough of approximately 25% for property values in Australia. This implies a further 10% fall in values.

In a market where declining values are prominent, a more defensive, (capital preservation) strategy becomes a key theme to investment decisions.

## The Size and Composition of the Four Quadrants

In order to undertake any meaningful analysis of the consequential impacts of changes in asset values and the availability of real estate credit it is first necessary to establish the size and composition of the investment grade real estate market in Australia.

In order to do this we have adopted the four quadrant investment model (which includes all real estate-related capital markets: public and private, debt and equity).

The four quadrant model involves the traditional real estate fundamental considerations of location, geography, asset type and tenant covenants. However, in addition the model considers an investment based upon the structural options available to the investor be they in the equity or debt quadrants.

In our experience, at any point in time within the investment universe, market inefficiencies exist. The advantage of using the four quadrant approach is that it makes these inefficiencies easier to identify creating the opportunity for sophisticated investors to position capital offensively or defensively thereby achieving enhanced risk adjusted returns.

In other words, assuming a property is fundamentally sound, the key question is which segment of the property's capital stack offers the best risk-adjusted returns (i.e. senior debt, subordinated debt or equity). The answer will be highly dependent upon the current market and the capital market cycle stage.

The four quadrant concept provides a natural platform to focus on the performance attributes of the underlying assets and the markets in which they operate. Returns, risk and cash flow as well as the characteristics of the underlying real estate markets form the foundation of this threshold analysis. Once these basic factors are understood, attention then shifts to the type of claims – equity and debt based – that match these assets and which investment provides the optimum risk adjusted return.

This research has been undertaken because we are of the view that now, more than ever, it is important to understand the implications of the inter-relationship of all of the four quadrants of the real estate capital stack on current and future real estate investment in Australia.

The rationale behind this view is that we have recently been through a credit crisis - this was a liquidity and debt market driven downturn rather than a specific commercial real estate supply and demand imbalance. This credit crisis has now evolved into a general economic recession. This is very different from previous cycles where real estate fundamentals have been the main contributing factor in property market downturns.

Accordingly, while there has been much discussion about the credit crunch and its impact upon the commercial real estate market, to date there is little research available focusing upon the whole capital stack including the debt aspect of the real estate capital markets, specifically to determine;

- § how much leverage there is in the system currently;
- § how current leverage levels compare to the past 10 years, and;
- § what this means with regard to the trend over the next couple of years.

In order to size the total market we have analysed data relating to the various components within each of the four quadrants to arrive at a cumulative total for each of the quadrants and the market as a whole. Exhibit 5 details the composition of the four quadrants of investment grade real estate in Australia from 2006 to today.

Exhibit 5  
Comparison of the Four Australian Investment Grade Real Estate Quadrants  
2006 – 2009 (AU\$ Billion)

Australia: The Four Investment Quadrants - 2006						Australia: The Four Investment Quadrants - 2008					
	Equity		Debt		Total		Equity		Debt		Total
Private	Unlisted wholesale	41	Bank lending	24	134	Private	Unlisted wholesale	82	Bank lending	57	224
	Unlisted retail	10	Mortgage trusts	19			Unlisted retail	16	Mortgage trusts	21	
	Property securities	39	Mezzanine funds	2			Property securities	45	Mezzanine funds	2	
	<b>Total</b>	<b>90</b>	<b>Total</b>	<b>44</b>			<b>Total</b>	<b>143</b>	<b>Total</b>	<b>81</b>	
Public	LPTs	33	CMBS	11	52	Public	LPTs	48	CMBS	8	64
			Corporate Bonds	7					Corporate Bonds	7	
	<b>Total</b>	<b>33</b>	<b>Total</b>	<b>18</b>			<b>Total</b>	<b>48</b>	<b>Total</b>	<b>15</b>	
<b>Total</b>	<b>123</b>	<b>62</b>	<b>185</b>	<b>Total</b>	<b>192</b>	<b>95</b>	<b>287</b>				

Australia: The Four Investment Quadrants - 2007						Australia: The Four Investment Quadrants - 2009					
	Equity		Debt		Total		Equity		Debt		Total
Private	Unlisted wholesale	59	Bank lending	40	186	Private	Unlisted wholesale	67	Bank lending	55	195
	Unlisted retail	13	Mortgage trusts	20			Unlisted retail	12	Mortgage trusts	21	
	Property securities	52	Mezzanine funds	2			Property securities	38	Mezzanine funds	2	
	<b>Total</b>	<b>124</b>	<b>Total</b>	<b>62</b>			<b>Total</b>	<b>117</b>	<b>Total</b>	<b>78</b>	
Public	LPTs	52	CMBS	12	71	Public	LPTs	39	CMBS	7	50
			Corporate Bonds	6					Corporate Bonds	3	
	<b>Total</b>	<b>52</b>	<b>Total</b>	<b>18</b>			<b>Total</b>	<b>39</b>	<b>Total</b>	<b>10</b>	
<b>Total</b>	<b>176</b>	<b>80</b>	<b>256</b>	<b>Total</b>	<b>155</b>	<b>88</b>	<b>244</b>				

Sources: APRA, Westpac, Fitch, Property Investment Research, Deutsche, AFMA Standard & Poors, Mirvac, Mercer

Note: this data relates to Australian income producing investment grade real estate only and excludes properties sub-\$5.0 million in value, development projects, residential real estate, rural holdings, etc. See attached addendum for a discussion on the methodology used to collate the above data.

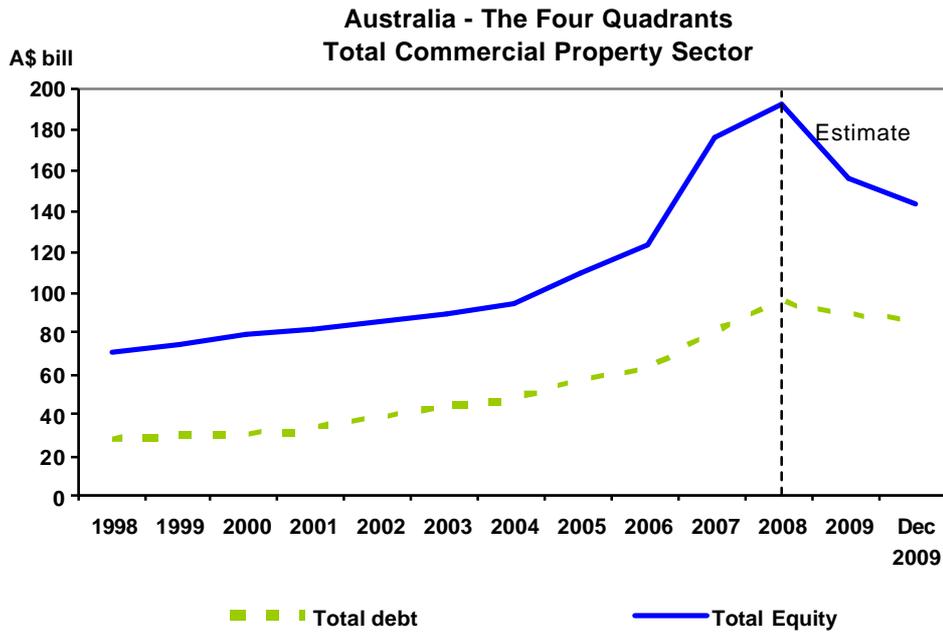
As illustrated in the tables above the overall size of the real estate capital markets (both debt and equity) has grown rapidly over the 3 years up to and including 2008.

In the face of a more competitive transactions market bidding up asset values (Exhibit 1), purchasers and investors were increasingly turning to higher leverage and more complicated financial structures in order to acquire properties whilst maintaining equity returns.

This strategy worked as long as asset values continued to increase, however with the systemic freezing of the global credit markets in the aftermath of the Lehman Brothers collapse, the secured debt capital has been somewhat protected while the equity investors have been battered. In hindsight, the increased risk being taken by equity investors was not being adequately rewarded by way of significantly increased returns through the cycle.

As illustrated in Exhibit 5, up until 2008 the significant increase in investment grade real estate debt was more than compensated for by a greater increase in real estate equity values. As the credit crunch hit and real estate values declined it has been the equity sector which has borne the brunt of the capital losses due to this re-pricing to date as illustrated in Exhibit 6.

Exhibit 6



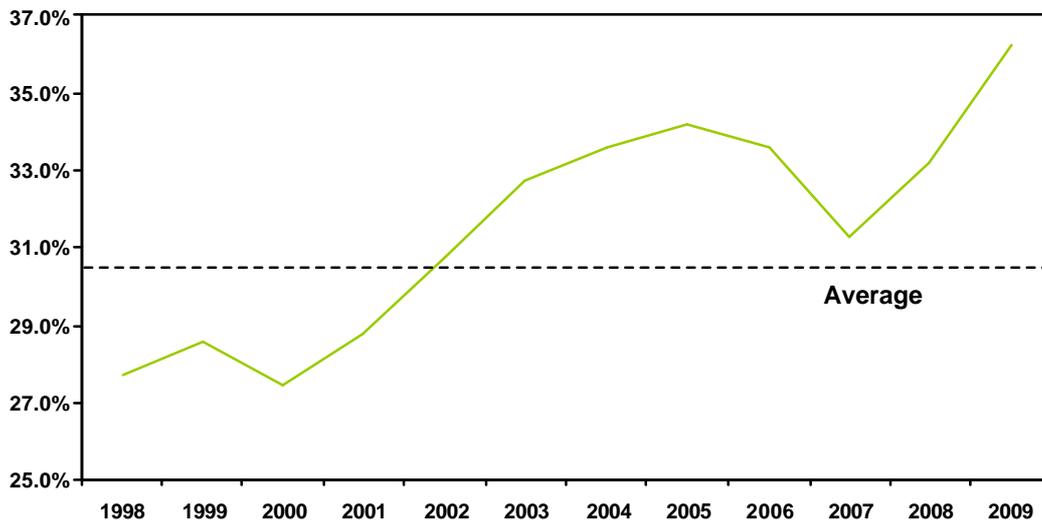
Sources: APRA, Westpac, Fitch, Property Investment Research, Deutsche, AFMA Standard & Poors, Mirvac, Mercer

## Sources and Availability of Real Estate Debt

As asset values have dropped, loan to value ratios have been steadily increasing due to the “denominator effect” (total value of debt has remained relatively constant, however, the decrease in total asset values has lead to a higher gearing percentage). This is illustrated in Exhibit 7.

Exhibit 7

**Australia - the Four Quadrants  
Total Commercial Property Sector Gearing (Debt/Assets)**



Sources: APRA, Westpac, Fitch, Property Investment Research, Deutsche, AFMA Standard & Poors, Mirvac, Mercer

As shown in Exhibit 7, existing gearing levels spiked to approximately 36% as a result of cap rate expansion and the resulting value declines. As this existing gearing matures and seeks refinancing, we believe there will be reluctance from the traditional lenders to refinance these properties at current levels but instead will revert to historically normal levels (sub 30%).

As such, despite gearing levels spiking in the short term, we expect to see a return to more normal loan to value levels over the next two to three years as the market is de-leveraged. This will be largely driven by;

- § Regulatory changes as they relate to Tier 1 capital requirements (Basel II) for all banks, and potential regulatory changes for the operation of mortgage funds.
- § Australian banks commercial pressures and desires to reduce real estate exposure as they orientate their capital on a relative value basis to operating business enterprises,
- § Limited new lending by the foreign banks currently operating in Australia, and,
- § Real estate companies inability to issue CBMS.

As shown in Exhibit 8, bank exposures to commercial property currently averages 9% of their total portfolio which is above what we understand are internal bank target of 8% (however current levels still compare favourably to the 17% average recorded in the early 1990's).

Exhibit 8

**Bank Total Commercial Property Exposures (\$Billions)**

	Aust \$	% of Book	Offshore \$	% of Book	Global total \$	% of Book
ANZ	22.0	9.3%	5.0	4.8%	27.0	7.9%
CBA	27.0	8.7%	2.8	5.0%	29.8	8.2%
NAB	17.6	5.9%	26.3	18.6%	43.9	10.0%
WBC	28.9	11.0%	4.4	8.4%	33.3	10.6%
SGB	18.5	15.4%	0.0	0.0%	18.5	15.4%
<b>Total</b>	<b>114.0</b>	<b>9.3%</b>	<b>38.5</b>	<b>10.9%</b>	<b>152.5</b>	<b>9.7%</b>
WBC/SGB	47.4	12.4%	4.4	8.4%	51.8	11.9%
Macquarie	2.9	5.5%	1.3	n/a	4.2	8.0%
Suncorp	11.5	20.9%	0.0	0.0%	11.5	20.9%
Bendigo	1.9	4.6%	0.0	0.0%	1.9	4.6%

*Source: GSJBW (based on December 2008 data)*

Exhibit 8 data includes all real estate exposures of the major Australian commercial banks including non investment grade assets, loans on real estate held as security for business loans, development exposures etc

Despite the rapid growth of banks commercial property books over the last 2-3 years GSJBW estimate that the major banks commercial property loss ratios will peak at approximately 4-6% compared to 10%-12% in the early 1990's. Accordingly, in our view for the foreseeable future both the domestic and foreign banks will be seeking to reduce their exposures to commercial real estate further compounding their reluctant lender status.

Like all sophisticated capital managers, the major banks (who represent the major source of real estate debt finance in Australia) are now allocating their capital on a relative value basis and with real estate capital values and income streams under pressure, it is apparent that commercial real estate is a low priority, once again due to the regulatory and commercial pressures discussed above.

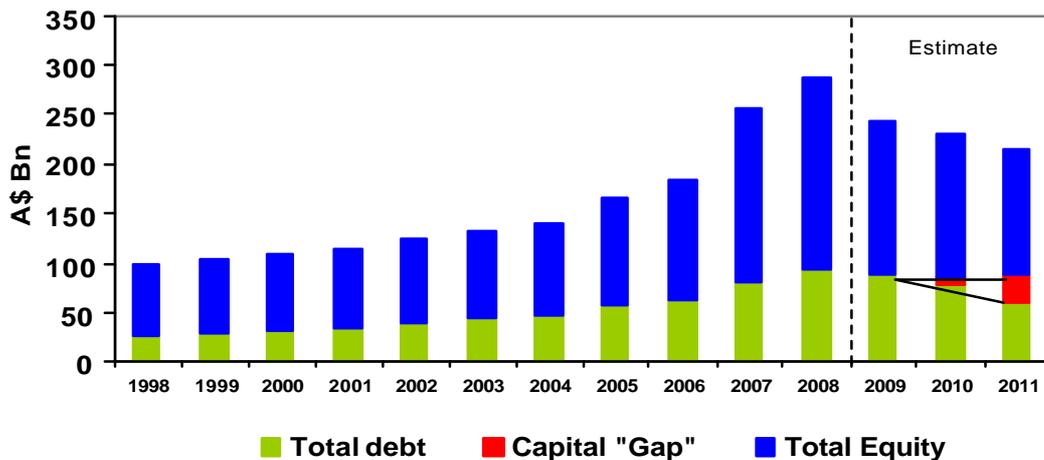
The other major source of investment grade real estate debt finance in Australia during the last cycle has been the Mortgage Funds. Presently most major multi investor Mortgage Funds have frozen redemptions and contributions and are closed to new lending. These pressures confronting the Mortgage Funds are likely to be further compounded by new regulation presently mooted by Government following the raft of spectacular failures in the sector.

### The Emerging "Gap"

As a result of asset de-leveraging, constraints on the supply of new debt and the significant equity write-downs a capital "gap" between the current quantum of equity invested in commercial property and the reduced level of debt available to the sector will open up as illustrated in Exhibit 9.

Exhibit 9

#### Australia - The Four Quadrants Total investment Grade Commercial Property Sector



Sources: APRA, Westpac, Fitch, Property Investment Research, Deutsche, AFMA Standard & Poors, Mirvac

In order to calculate the size of this "gap" we have applied our estimated 25% peak to trough valuation discount to the total investment grade commercial property universe and have assumed that the majority of this loss will be applied to the equity component (being the first loss piece) of the capital stack. This provides us with a total investment grade commercial property universe in 2011 of \$215 billion and an equity component of \$127 billion.

We have then applied the pre-credit boom average gearing level of 28% to the value of total assets to size the debt component at \$60 billion. The remaining balance \$28 billion represents the quantum of new capital that will need to be injected into the system over the next 18 to 24 months.

The challenge for the property industry is to identify how this gap can be most effectively filled. We are of the view that this will be achieved by a combination of sources including equity, preferred equity, convertible notes, bond issues and secured lending which means there is enormous scope for investors to choose where they would like to be positioned in the capital stack to most optimally deliver their stated risk/return objectives.

For those followers of our commentaries on the US and Australian markets you will be familiar with our strong desire to promote institutional investment in real estate backed debt. We have long held the view that the inclusion of a component of real estate debt within an institutional real estate portfolio can enhance portfolio performance and dampen volatility.

While debt has long been the domain of the "fixed interest" allocation of investors we believe a bottom-up real estate fundamentals approach to asset selection and management can enhance returns.

It is now clear that the future growth of our real estate industry is severely limited by the source and availability of debt capital. We believe the local real estate investment market is fundamentally beyond the capacity of the reducing number of domestic banks.

## Conclusions and Prospects for Real Estate

Assuming;

- 1) a continuance of the, in the main, prudent real estate lending practices of the major Australian commercial banks,
- 2) the application by the Australian commercial banks of Basel II Regulatory changes, and,
- 3) the likelihood that the foreign banks will, at best have no desire to expand their lending books, (and at worst seek to reduce their exposures),

we contend that the growth prospects for equity real estate investments will be significantly constrained well into the next broad based economic upswing.

Notwithstanding the above because of the recent capital market volatility, we believe there are currently excellent investment opportunities within the commercial real estate market. The nature, structure and position in the capital stack of the optimum investment for an individual investor will depend upon their stated risk and return objectives. Going forward we expect to see a return to fundamentals driven investment techniques in order to achieve real estate asset returns rather than the reliance upon market movements that was prevalent from 2002 - 2008. Our views on the outlook and opportunities for investing in Australian commercial real estate are as follows:

Australian commercial real-estate market fundamentals are sound: The current flight from risk in the real estate markets reflects economic concerns in the capital market and the credit crunch. It has little to do with the underlying commercial real-estate market fundamentals which are still relatively sound. There has been limited overbuilding in most markets, vacancies are currently low (albeit increasing) and pre-crisis rental levels and capital values had not increased as significantly as they did prior to the previous downturn in the early 1990's.

Increased interconnectivity: The interconnectivity of the global capital markets that has emerged over the last two decades is here to stay. Going forward, we expect to see a continually increasing level of connectivity between investment asset classes which will result in many more external exogenous shocks having an impact upon the commercial real estate market. This is expected to result in more volatile, short, sharp cycles rather than the traditional long run boom and bust cycles of the past.

Limited "easy wins": The significant flow of distressed real estate and asset sales at deep discounts that was expected by many has not yet materialised. Accordingly, investors, managers and their advisors must be patient, highly selective and undertake a significant amount of market research and due diligence in order to unearth the quality investment opportunities that will provide outsized risk-adjusted returns going forward. This is something we should have been doing all along.

Focus on income and position for growth: During this slowdown investors should seek to identify opportunities to obtain solid income returns in a more conservative position up the capital stack and position themselves to take advantage of the next upswing in the commercial real estate markets.

The opportunity: In short we feel we are at an inflection point where we will see the emergence of an institutional quality non bank real estate debt market to supplement our well established real estate equity markets. With equity real estate values likely to be constrained for the medium term, we believe institutional investors can expect to achieve excellent risk adjusted returns for real estate backed debt.

## *About Quadrant*

*Quadrant Real Estate Advisors LLC is a real estate investment manager with in excess of USD 5 bn of assets under management contained within tailored separate client account mandates and commingled funds.*

*Quadrant defines the investment grade real estate investment universe as comprising both debt and equity within the public and private markets (i.e. the four quadrants) and applies a Relative Value approach to investment orientation applying offensive and defensive as the market cycle dictates.*

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## Addendum: Four Quadrant Construction Methodology

In estimating the size of the four quadrants of investment grade Australian real estate data was collated from a variety of sources. As a point of reference we sought to determine the size of each of the Quadrant of Australian domicile assets in excess of \$5m noting that any asset below this would not, by our estimate qualify as being institutional grade as a stand alone asset.

### Debt analysis

The Australian Prudential Regulation Authority (APRA) collates raw data from the Australian commercial banks that includes exposure to commercial investment grade property. This data was then adjusted for unlisted funds and property securities (based on data from Property Investment Research – PIR). Further adjustment was required in order to correctly reflect the proportion of lending to onshore and offshore assets particularly for property securities were many A REIT's maintained significant offshore exposures.

The mortgage fund sector has grown substantially during the most recent real estate cycle. The sector is large and diverse with a large number of smaller market participants who focus on loans secured by what we believe are non investment grade assets. Accordingly all mortgage funds with assets sub \$50m were disregarded. For mortgage funds greater than \$500m these amounts were adjusted to reflect cash holdings and non investment grade real estate where this could be determined.

Publicly issued debt securities data, (corporate bonds and CMBS) is readily available from a variety of sources including A REIT Annual Reports, research houses and Rating Agencies.

### Equity analysis

Raw data for A REIT's was collated by reference to balance sheets, less debt and offshore assets as well as adjusting for the corporate activities, (i.e. activities outside passive ownership of real estate e.g. funds management, development etc) to remove the element of corporate valuation in the balance sheet asset figure.

For unlisted companies, the equity figure was determined from the difference between total assets and total debt for unlisted wholesale and retail funds, as well as property securities, as published by PIR.

Figures for June and December 2009 were based on several assumptions, given the absence of actual data. Asset values were discounted by forecast cap rate expansion estimates. Gearing for listed property was held constant as research indicated that the equity injections from capital raisings were offset by asset write downs. For the unlisted groups, asset values were discounted at the same rate, however debt figures were left constant assuming a slower rate for private investor capital being used to lower debt."

Sources for data used in the analysis were: Mercer, Mirvac, Property Investment Research, Standard & Poors, Westpac, APRA, Fitch, Deutsche and AFMA.