

Green Cities 2011: Introducing the PCA /IPD Green Investment Index

IPD Australia and New Zealand
Monday 28 February 2011

On the pulse of
the property world





- 1 Motivation
- 2 Methodology
- 3 Index Results
- 4 Summary



- 1 Motivation
- 3 Methodology
- 3 Index Results
- 4 Summary

Quantifying green investment - constructing a green property index

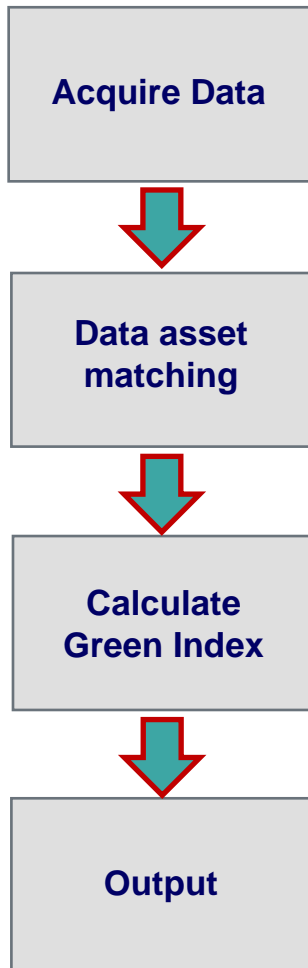


- **Index measures investment returns for buildings which have environmental performance ratings**
- **Provides tangible metrics on the performance of “green” buildings with a focus on investment rather than operational considerations**
- **Undertake benchmarking analysis between environmental performance rated and non-rated buildings**
- **Improves transparency in the market and across the property industry**



- ① Motivation
- ② Methodology**
 - Framework
 - Data sets
- ③ Index Results
- ④ Summary

Process for index construction



- Acquire all publicly available Green Star and NABERS performance records
- Information set is updated quarterly

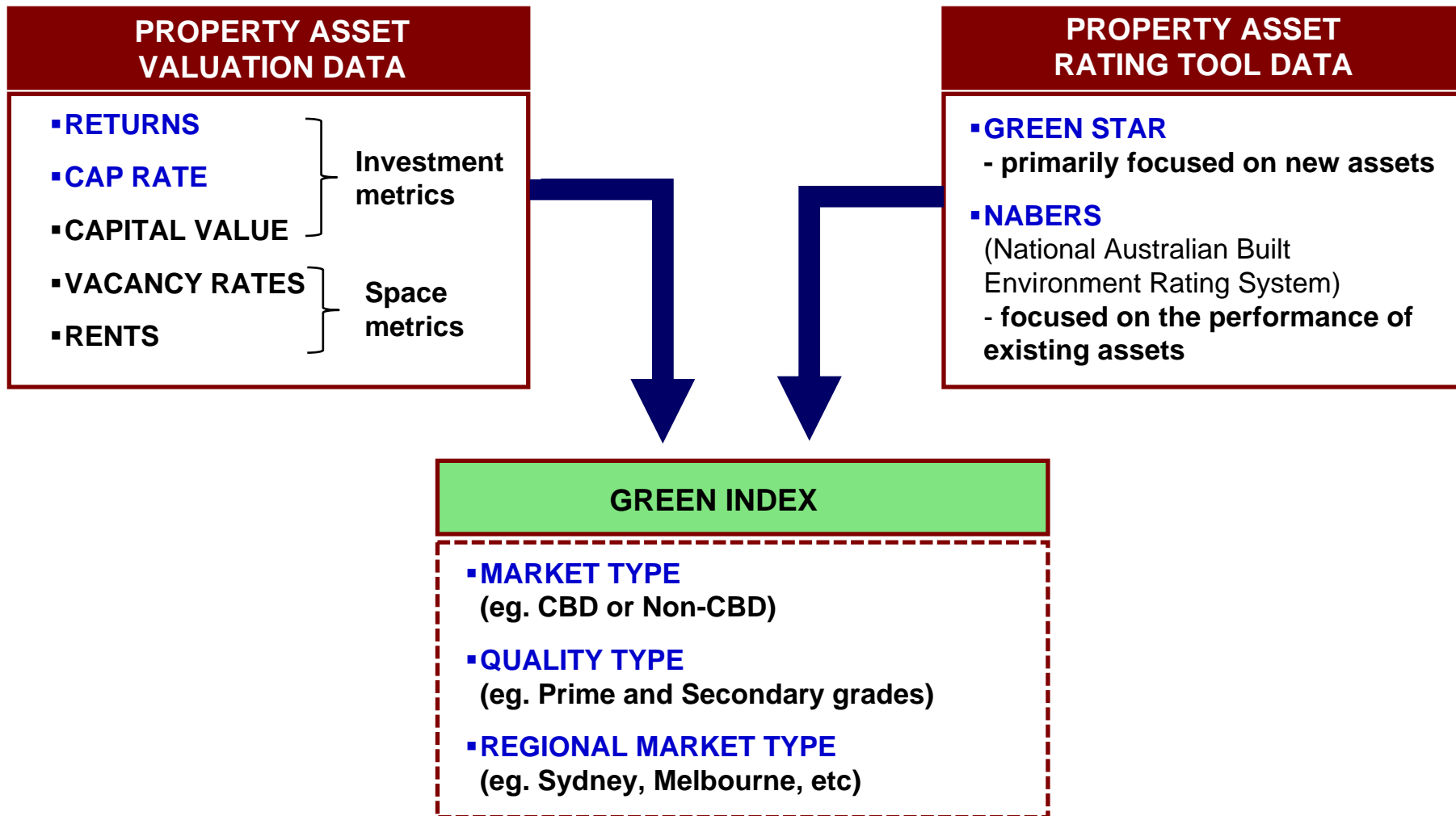
- Align IPD asset level investment data with Green Star and NABERS ratings
- Cross-check rating data with asset owners
- Asset overlap in samples reflects assets being rated by multiple ratings tools

- Calculate index using standard IPD return methodology
- Index produced quarterly with time period spanning between 2-3 years

- Compute various index segmentations
- A variety of performance metrics: returns, pricing and space markets

Data elements of the Green index

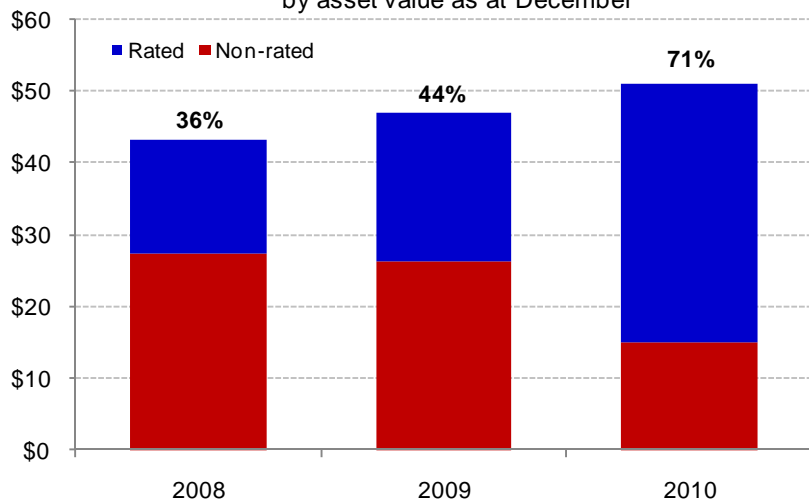
- merging property asset valuation and environmental rating data



Data sources from IPD data base - rated office buildings represent a significant share of the office assets



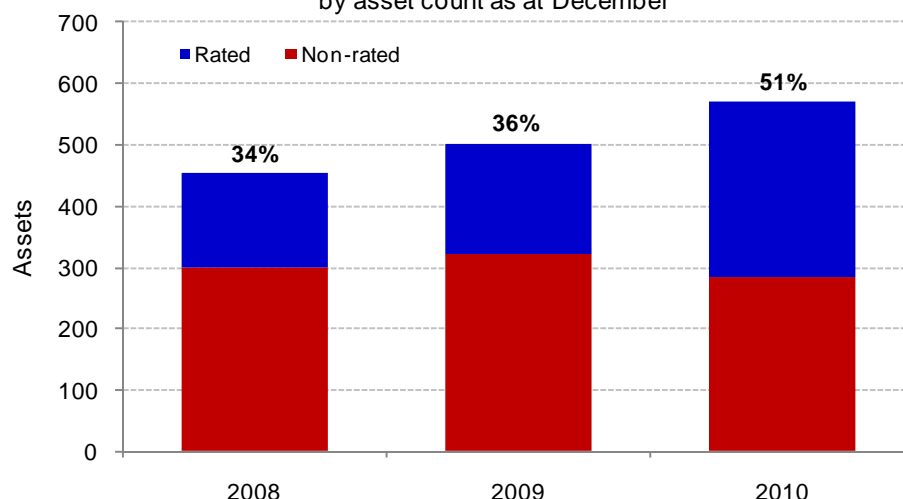
Database of rated and non-rated office assets
by asset value as at December



Note: percentage refers to share of rated assets in the database.

Source: IPD Research.

Database of rated and non-rated office assets
by asset count as at December



Note: percentage refers to share of rated assets in the database.

Source: IPD Research.

- The Australian IPD database currently has c1,500 of commercial assets with an asset value of c\$117bn. It represents c60% of investment-grade property in Australia.
- Commercial office assets account for c570 assets with a combined asset value of \$51 bn.
- Rated office assets (c\$36 bn) now represent a significant share of the office asset database.

Rating tools and classifications

- samples based on selected Green Star and NABERS segments



Design / As Built Tool

GREEN STAR

- Green Star Assessment Category:
 - Office Design v1
 - Office As Built v1
 - Office Design v2
 - Office As Built v2
 - Office Design v3
 - Office As Built v3
 - Office Interiors v1.1
 - Retail Centre Design v1
 - Retail Centre As Built v1
 - Industrial Design v1
 - Industrial As Built v1
 - Healthcare Design v1
 - Healthcare As Built v1
- Green Star Rating:
 - 4, 5 and 6 star

Performance Tool

NABERS ENERGY

- NABERS Energy Rating Type:
 - Office
 - Retail
- NABERS Energy Rating Category:
 - Base Building
 - Whole Building
 - Tenancy
 - Retail
- Green Power:
 - With green power
 - Without green power

NABERS WATER

- NABERS Water Rating Type:
 - Office
 - Retail
- NABERS Water Rating Category:
 - Base building
 - Whole building
 - Tenancy
 - Retail
- Water Usage:
 - With recycled water
 - Without recycled water



- ① Motivation
- ② Methodology
- ③ Index results**
 - Green Star
 - NABERS
- ④ Summary

A roadmap for index results - based on Green star ratings



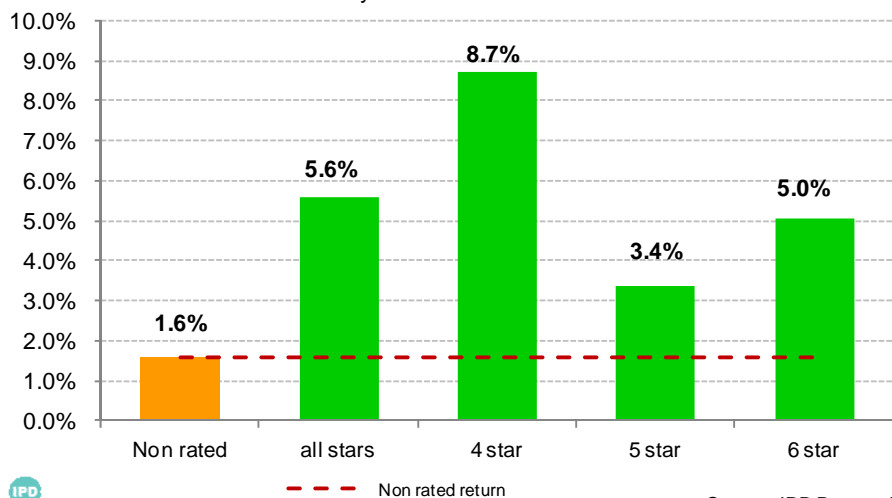
MARKET SEGMENT	RATING TOOL		
	GREEN STAR	NABERS ENERGY	NABERS WATER
MARKET TYPE	<ul style="list-style-type: none"> ▪ ALL OFFICE ▪ CBD OFFICE ▪ NON-CBD OFFICE 		
QUALITY TYPE	<ul style="list-style-type: none"> ▪ PRIME GRADE 		
REGIONAL TYPE	<ul style="list-style-type: none"> ▪ SYDNEY CBD ▪ MELBOURNE CBD 		

Index results for Green Star - office market total return and cap rates



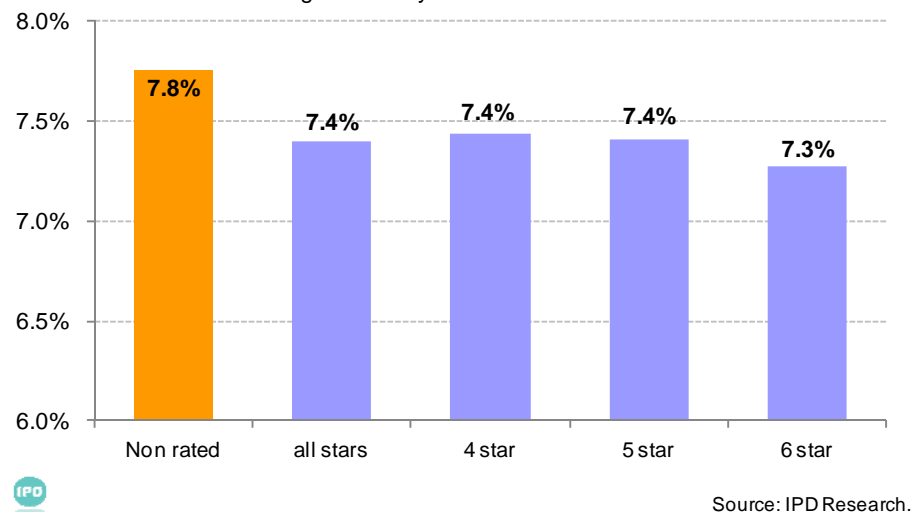
Green Star: returns for office market

annualised 2 year returns to December 2010



Green Star: cap rates for office

averaged over 2 years to December 2010

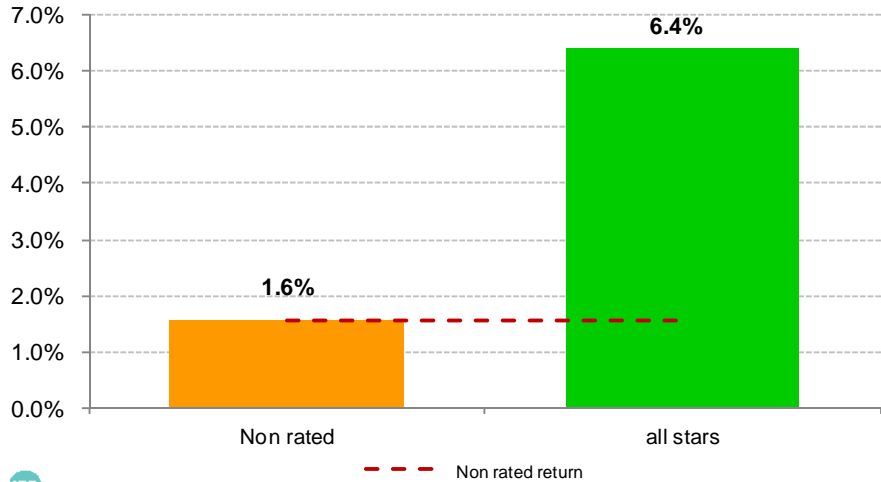


- The return spread between rated and non-rated buildings with a Green Star rating is c400bps.
- Rated office buildings have lower cap rates – an average of 40bps.

Index results for Green Star - CBD versus non-CBD returns

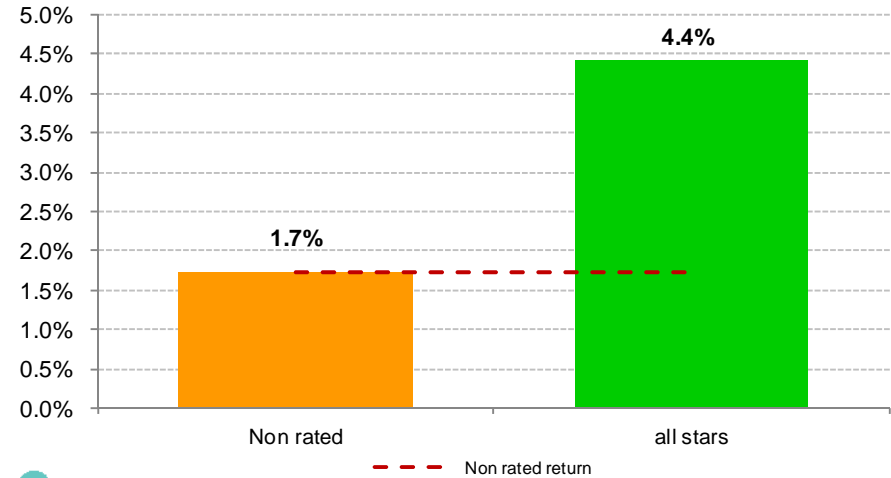


Green Star: returns for CBD office
annualised 2 year returns to December 2010



Source: IPD Research.

Green Star: returns for non-CBD office
annualised 2 years to December 2010



Source: IPD Research.

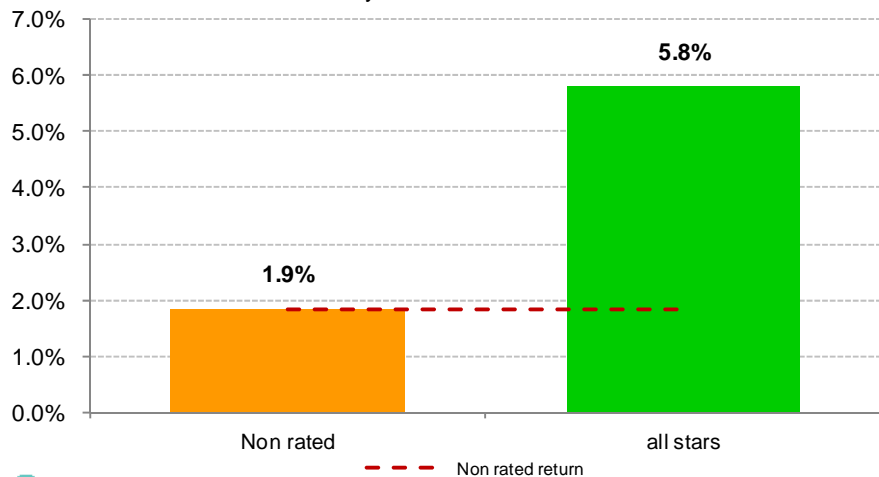
- **Rated Green Star office buildings deliver a higher return than non-rated buildings for both CBD and non-CBD office markets.**

Index results for Green Star - prime office market returns and cap rates



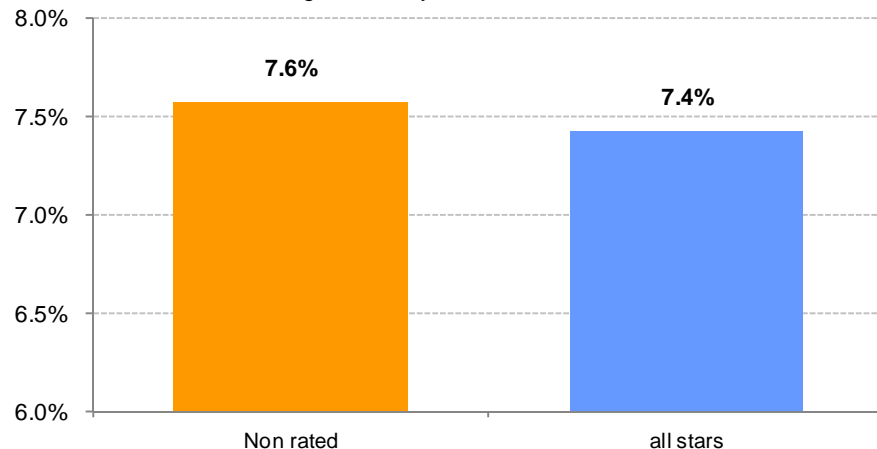
Green Star: returns for prime office

annualised 2 year returns to December 2010



Green Star: cap rates for prime office

averaged over 2 years to December 2010

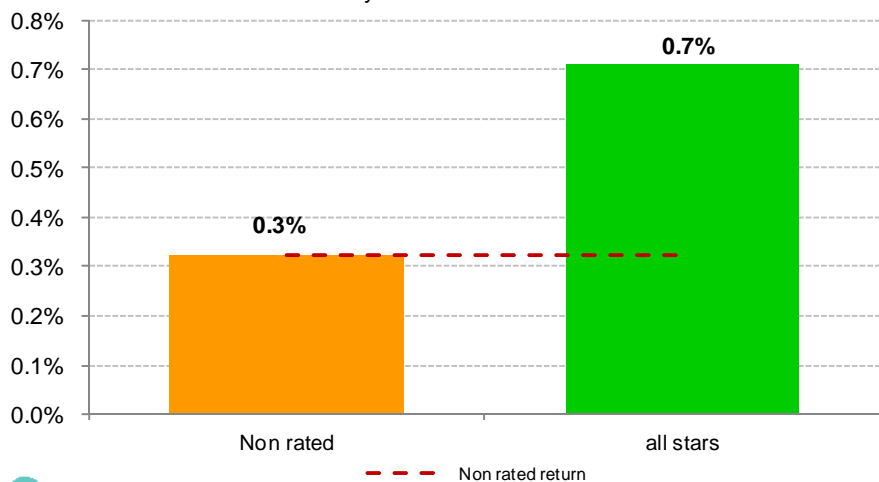


Index results for Green Star - Sydney versus Melbourne CBD



Green Star: returns for SYD CBD office

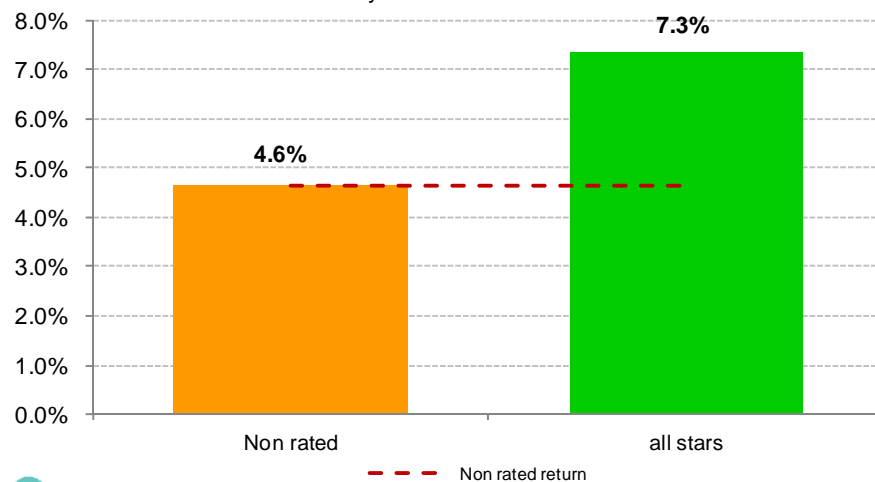
annualised 2 year returns to December 2010



Source: IPD Research.

Green Star: returns for MEL CBD office

annualised 2 year returns to December 2010



Source: IPD Research.

- **Rated Green Star office buildings deliver a higher return than non-rated buildings for both Sydney CBD and Melbourne CBD office markets.**

A roadmap for index results - based on NABERS Energy ratings

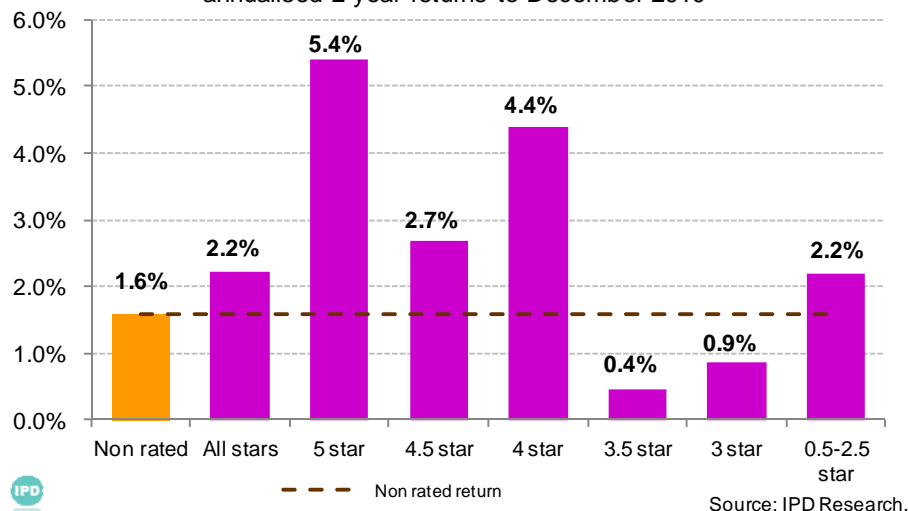


MARKET SEGMENT	RATING TOOL		
	GREEN STAR	NABERS ENERGY	NABERS WATER
MARKET TYPE		<ul style="list-style-type: none"> ▪ ALL OFFICE ▪ CBD OFFICE ▪ NON-CBD OFFICE 	
QUALITY TYPE		<ul style="list-style-type: none"> ▪ PRIME GRADE 	
REGIONAL TYPE		<ul style="list-style-type: none"> ▪ SYDNEY CBD ▪ MELBOURNE CBD 	

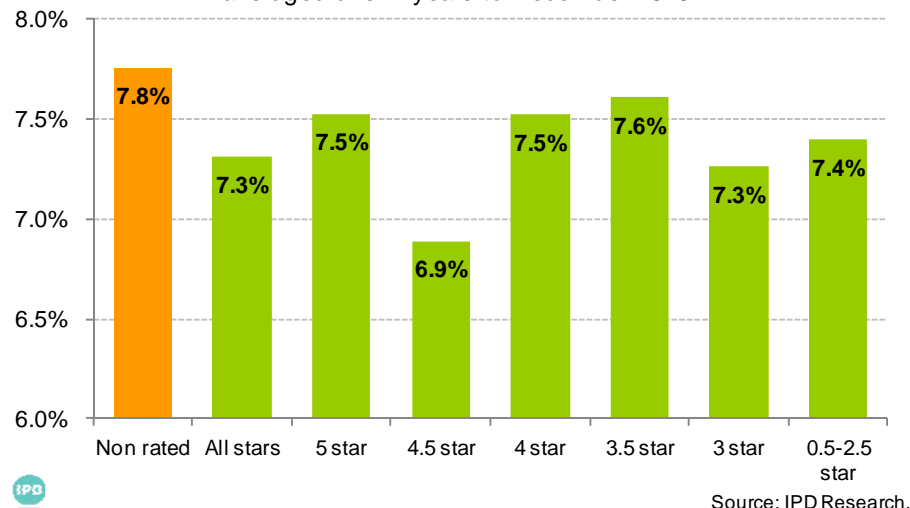
Index results for NABERS Energy - office market total return and cap rates



NABERS Energy: returns for office
annualised 2 year returns to December 2010



NABERS Energy: cap rates for office
averaged over 2 years to December 2010



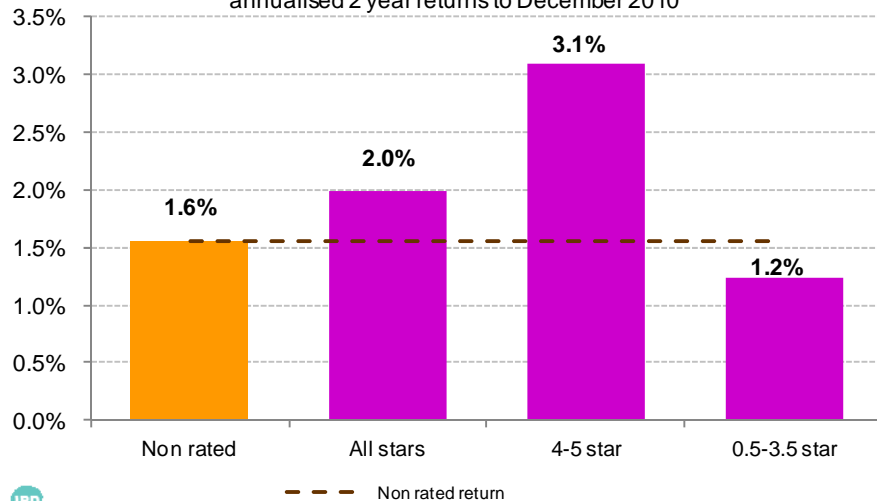
- The return spread between rated and non-rated buildings with a NABERS Energy rating is c60bps.
- Buildings with a rating of 4 star or above deliver significantly higher returns than buildings with a rating of 3.5 star or below.
- Rated office buildings have lower cap rates than the non-rated building pool.

Index results for NABERS Energy - CBD versus non-CBD returns



NABERS Energy: returns for CBD office

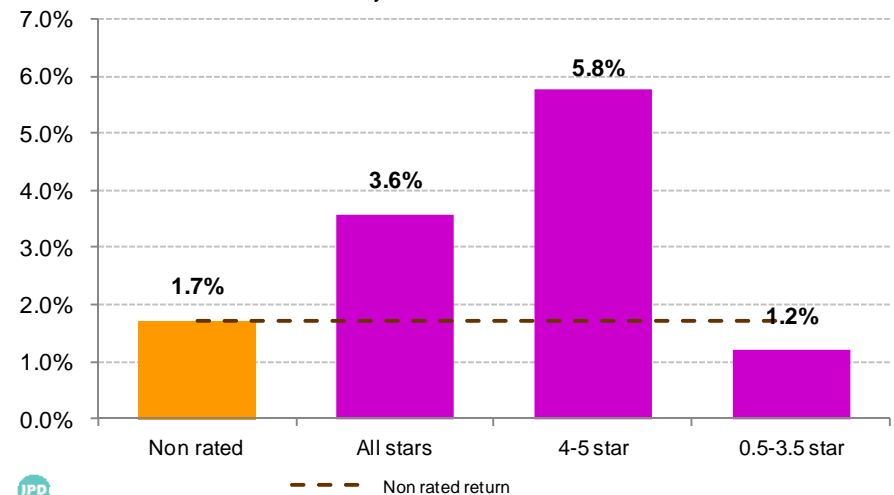
annualised 2 year returns to December 2010



Source: IPD Research.

NABERS Energy: returns for non-CBD office

annualised 2 year returns to December 2010



Source: IPD Research.

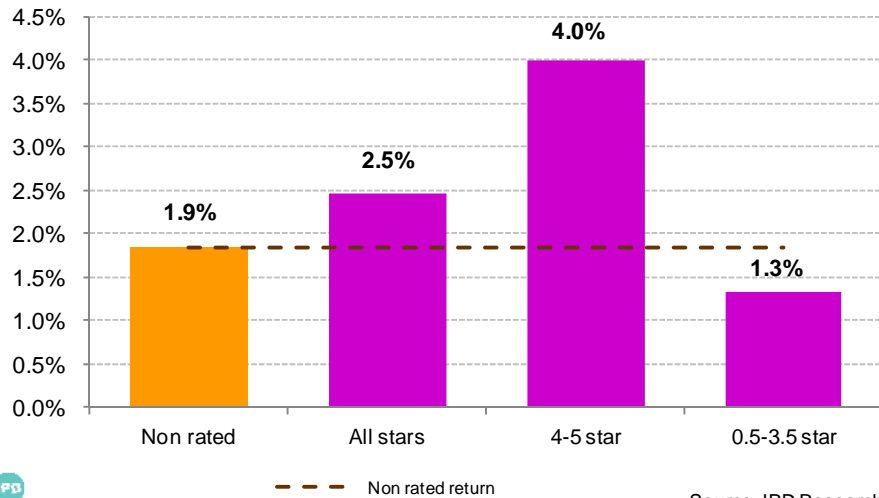
- **Rated NABERS Energy office buildings, on average, deliver a higher return than non-rated assets for both CBD and non-CBD office markets.**
- **Rated NABERS Energy office buildings with a 4 to 5 rating deliver a higher return than non-rated buildings; buildings with a rating between 0.5 to 3.5 deliver a lower return than non-rated assets.**

Index results for NABERS Energy - prime office market returns and cap rates



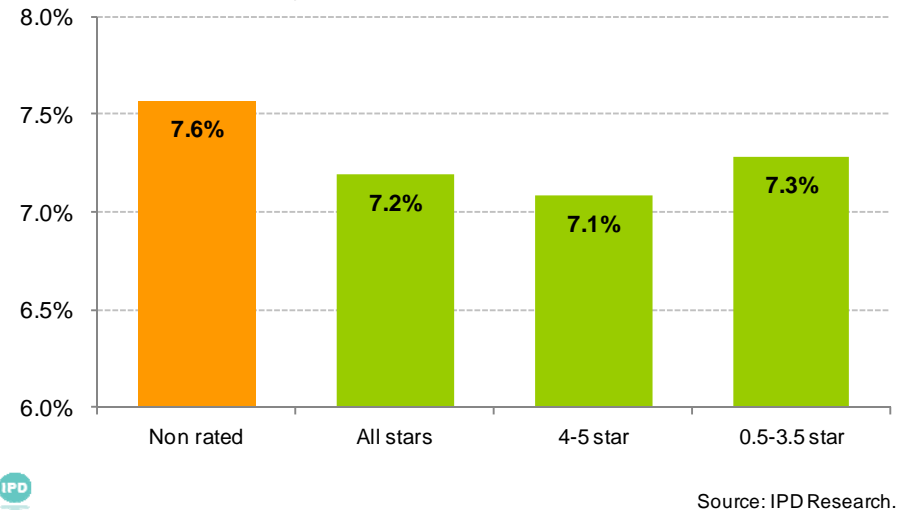
NABERS Energy: returns for prime office

annualised 2 year returns to December 2010



NABERS Energy: cap rates for prime office

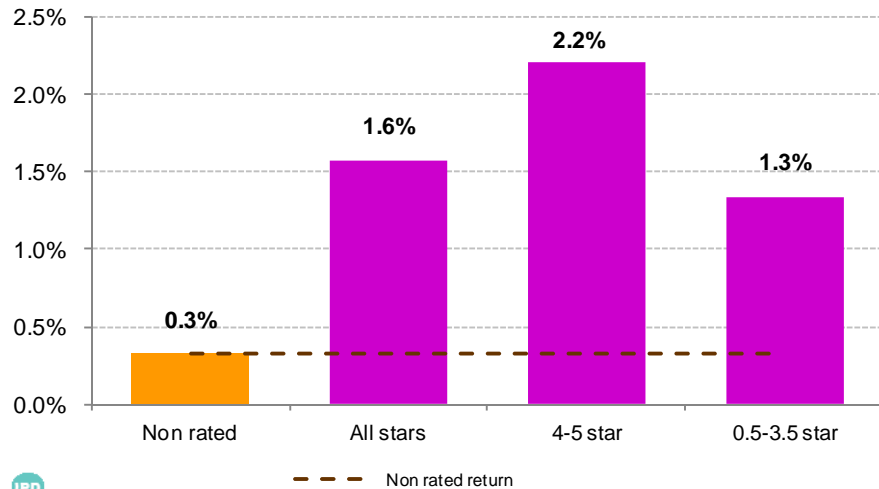
averaged over 2 years to December 2010



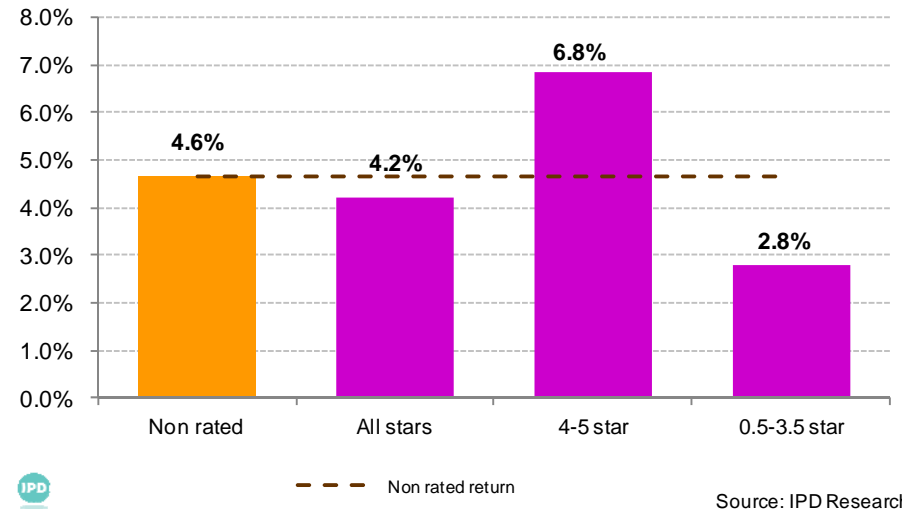
Index results for NABERS Energy - Sydney versus Melbourne CBD



NABERS Energy: returns for SYD CBD office
annualised 2 year returns to December 2010



NABERS Energy: returns for MEL CBD office
annualised 2 year returns to December 2010



- **Rated NABERS Energy office buildings deliver a higher return for the Sydney CBD office market.**
- **Rated NABERS Energy office buildings with a 4 to 5 rating deliver a higher return for the Melbourne CBD office market.**

A roadmap for index results - based on NABERS Energy ratings

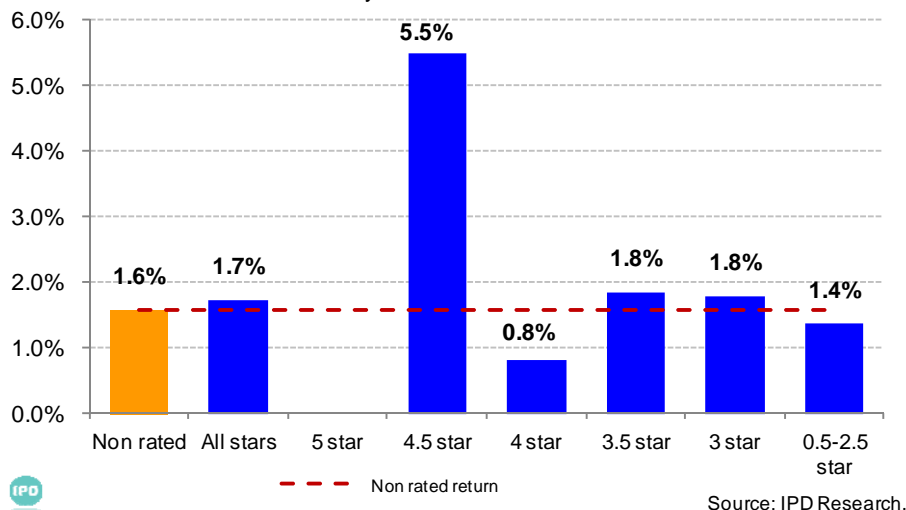


MARKET SEGMENT	RATING TOOL		
	GREEN STAR	NABERS ENERGY	NABERS WATER
MARKET TYPE			<ul style="list-style-type: none"> ▪ ALL OFFICE ▪ CBD OFFICE ▪ NON-CBD OFFICE
QUALITY TYPE			<ul style="list-style-type: none"> ▪ PRIME GRADE
REGIONAL TYPE			

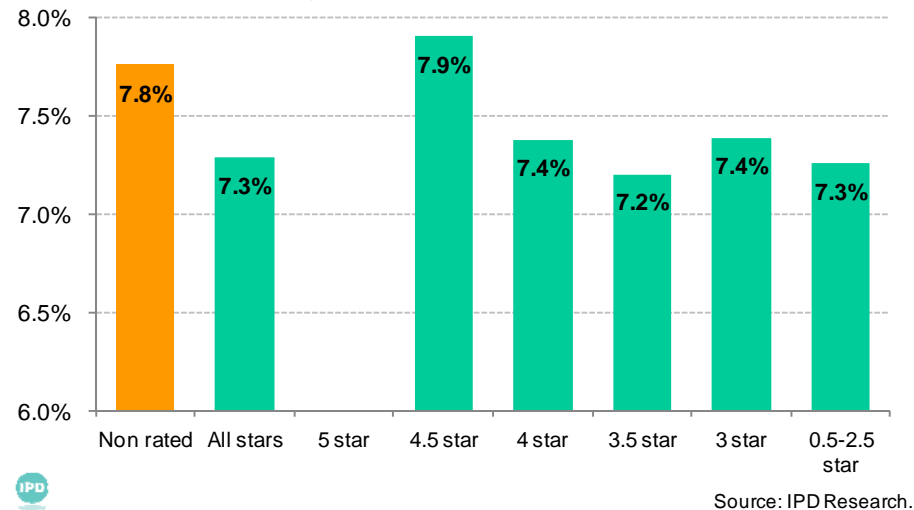
Index results for NABERS Water - office market total return and cap rates



NABERS Water: returns for office
annualised 2 year returns to December 2010



NABERS Water: cap rates for office
averaged over 2 years to December 2010

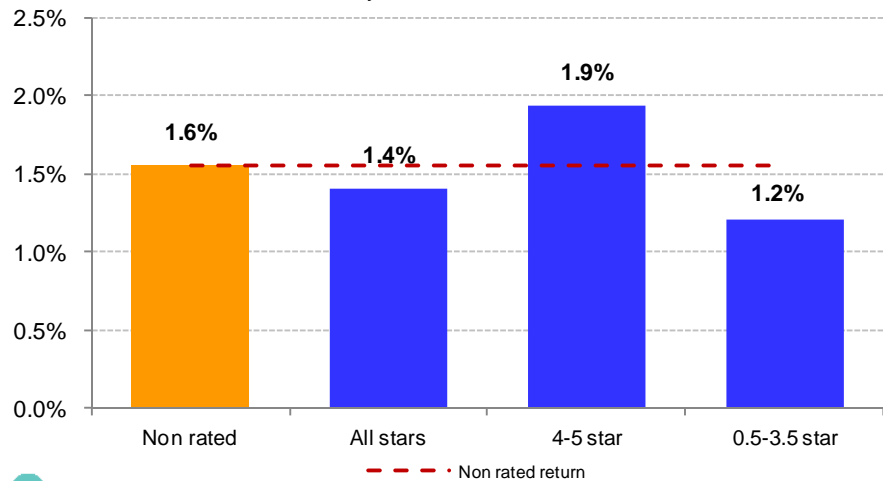


- The return spread between rated and non-rated buildings with a NABERS Water rating is c10bps.
- Rated office buildings have lower cap rates than the non-rated building pool.

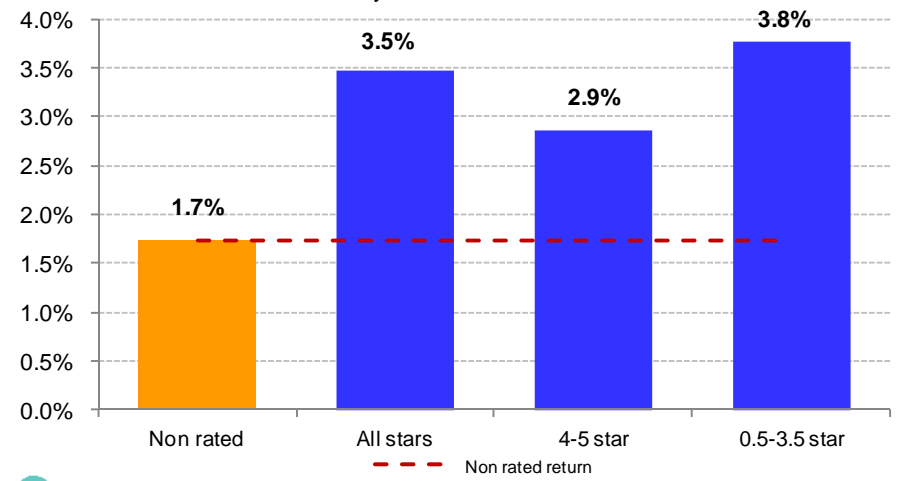
Index results for NABERS Water - CBD versus non-CBD returns



NABERS Water: returns for CBD office
annualised 2 year returns to December 2010



NABERS Water: returns for non-CBD office
annualised 2 year returns to December 2010



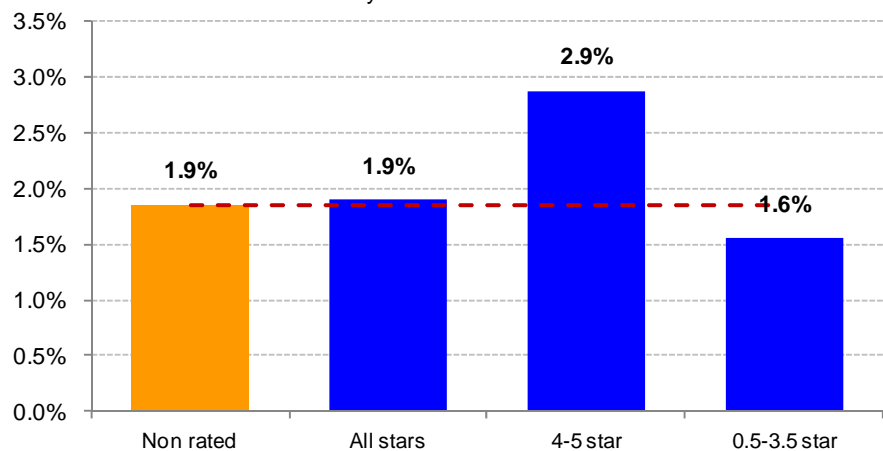
- **Rated NABERS Water office buildings with a 4 to 5 rating deliver a higher return than non-rated buildings for the CBD office market.**
- **Rated NABERS Water office buildings deliver a higher return than non-rated buildings for the non-CBD office market.**

Index results for NABERS Water - prime office market returns and cap rates



NABERS Water: returns for prime office

annualised 2 year returns to December 2010

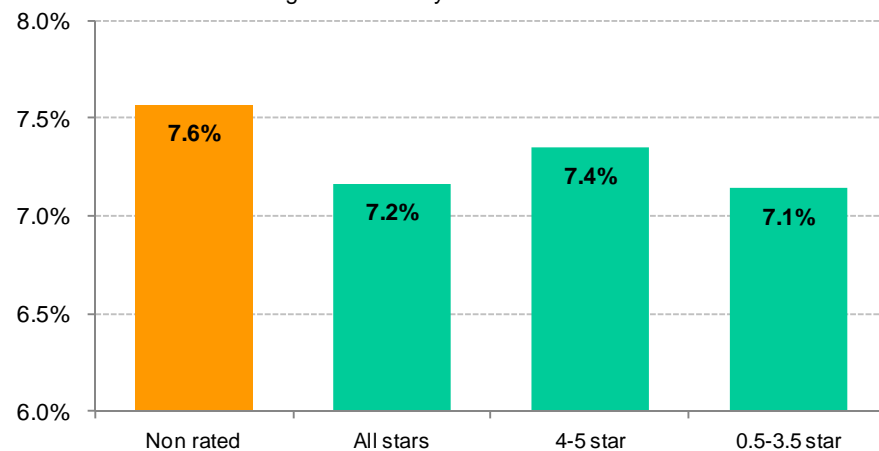


--- Non rated return

Source: IPD Research.

NABERS Water: cap rate for prime office

averaged over the 2 years to December 2010



Source: IPD Research.

- Rated NABERS Water office buildings with a 4 to 5 rating deliver a higher return than non-rated buildings for the prime office market.

Outline



- ① Motivation
- ③ Methodology
- ③ Index Results
- ④** Summary

Summary remarks

- key results and issues



- **First index to quantify the investment performance of buildings with environmental rated tools**
- **Results suggest that rated assets deliver better return performance than non-rated asset pools**
 - Notable for Green Star and NABERS Energy rated assets
 - Results are consistent across various market segmentations
- **Cap rates are lower for rated assets as opposed to non-rated asset pools**
 - This reflects better asset quality in rated assets
- **Next step: review a broader set of diagnostic metrics**
 - Examine movements in capital values, rentals and vacancy rates

Contacts



Anthony De Francesco
Managing Director

Telephone: +61 2 9248 1901

Mobile: +61 (0) 405 506 284

Email: anthony.de.francesco@ipd.com

Peter McGuinness
Research Manager

Telephone: +61 2 9248 1904

Mobile: +61 (0) 422 914 520

Email: peter.mcguinness@ipd.com

IPD – AUS/NZ

Address: Suite 3, Level 3, 275 George Street, Sydney NSW 2000, Australia

Web: www.ipd.com/australia

Intellectual Property Rights and use of IPD statistics as benchmarks

Whether in the public domain or otherwise, IPD's statistics are the intellectual property of Investment Property Databank Limited. It is not permissible to use data drawn from this presentation as benchmarks.

© Investment Property Databank Limited (IPD) 2010. Database Right, Investment Property Databank Limited (IPD) 2010. All rights conferred by law of copyright and by virtue of international conventions are reserved by IPD