



INSIGHTS FOR PERFORMANCE

IPD SA ANNUAL GREEN PROPERTY INDEX

Phil Bartram – Executive Director – MSCI

July 2018

IPD SA ANNUAL GREEN PROPERTY INDEX

METHODOLOGY

The IPD South Africa Annual Green Property Index tracks the performance of Green Star Certified Prime & Grade A Office properties and compares it to the rest of the IPD Prime & Grade A Office Universe

Portfolio Data Collection

Confidentiality and Convenience

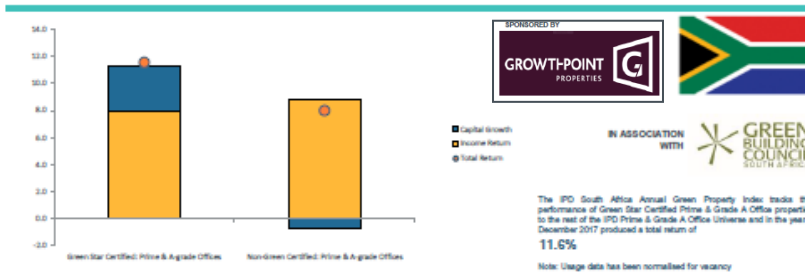
Validation & Aggregation

Audit, verification, client sign off and aggregation

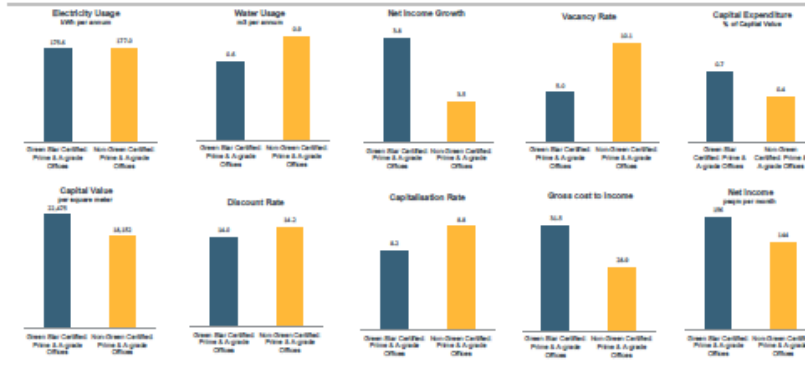
Aggregation/Segmentation

Independence and Accuracy

IPD South Africa Annual Green Property Index
Results for the year to December 31, 2017



IPD South Africa Annual Green Property Index	Electricity Usage kWh per annum		Water Usage m ³ per annum		Total Return		Capital Growth		Income Return		Dividend % of Capital Value		Capital Value		Net Income		Vacancy Rate		Discount Rate		Cap Rate		
	Green Star Certified Prime & A-grade Offices	Non-Green Certified Prime & A-grade Offices	Green Star Certified Prime & A-grade Offices	Non-Green Certified Prime & A-grade Offices	1 Year	3 Year	1 Year	3 Year	1 Year	3 Year	1 Year	3 Year	1 Year	3 Year	1 Year	3 Year	1 Year	3 Year	1 Year	3 Year	1 Year	3 Year	
Green Star Certified Prime & A-grade Offices	175.8	177.0	0.8	0.3	11.6	3.3	0.0	0.7	2267.7	3.8	0.0	14.3	8.2	1817.8	3.0	10.1	14.3	8.2					
Non-Green Certified Prime & A-grade Offices	177.0	177.0	0.8	0.3	8.0	-0.8	0.0	0.4	1817.8	3.0	10.1	14.3	8.2										



IPD South Africa Annual Green Property Index - Database Profile	Capital Value (Rm)	Capital Value (% of total)	Number of Properties	Number of Floors	Green Building Rate
Green Star Certified Prime & A-grade Offices	30,481	37.7	65	9	81.5%
Non-Green Certified Prime & A-grade Offices	59,789	62.3	330	14	18.5%

Identify Green Star rated Prime & A-grade office properties

Compare to Non-Certified Prime & A-grade Offices

Headline Returns

Sector & segment benchmarks

Comparative reporting of Property Fundamentals

FORMAT

- INTRODUCTIONS
- APPROACH
- FINDINGS
- AN INVESTOR PERSPECTIVE - ESG
- Q&A

MSCI – BUILT TO SUPPORT YOUR INVESTMENT PROCESS

For more than 40 years, MSCI has helped the world's leading institutional investors build and manage better portfolios



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94% of US pension fund assets invested in global equities are benchmarked to MSCI³

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“Best Buy-Side Risk Management”

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ESG RESEARCH

World's largest provider of Environmental, Social and Governance (ESG) data and research⁴

47 of top 50 global asset managers⁵ 900+ clients including 125 asset owners

220+ dedicated full time staff globally to ESG business, including 150+ ESG research analysts⁶



REAL ESTATE

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Analysis tools that can be applied to all types of Real Estate

40+ YEARS IN BUSINESS

33 GLOBAL LOCATIONS

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7,500 ACTIVE CLIENTS

MSCI REAL ESTATE – DIRECT & FUND LEVEL PROPERTY INDEXES

MSCI measures one-quarter of the world's investment real estate spanning **32 Countries** and capital values of approximately **US \$2.0 trillion¹**



1,406
Portfolios



74,082
Assets



~17 years
Track record

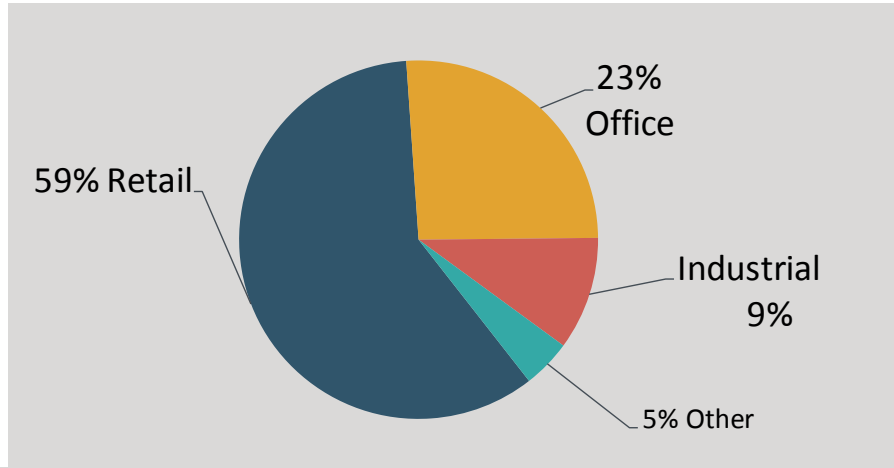


SOUTH AFRICA

IPD Universe Benchmark - December 2017

- 1995** INDEX INCEPTION DATE
- 18** NUMBER OF PORTFOLIOS
- 1 649** NUMBER OF ASSETS
- R 356** GROSS CAPITAL VALUE (bn)
- ~ 67%** COVERAGE

Source: MSCI



Also includes Cubisol



* June only contributors



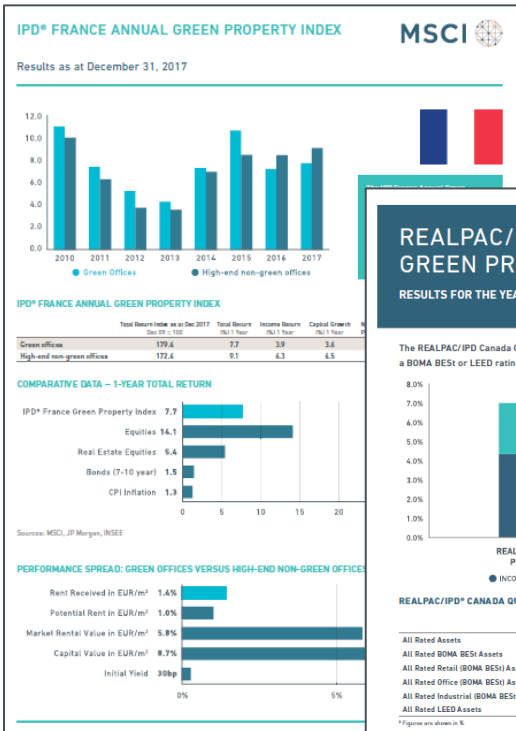
MSCI GREEN INDEXES ACROSS THE WORLD

METHODOLOGY

GREEN PROPERTY INDEX

FRANCE, CANADA, SOUTH AFRICA

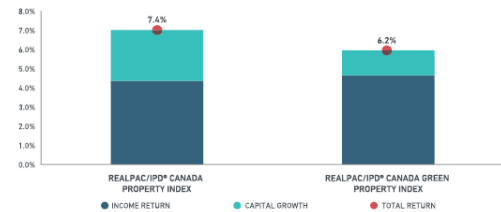
Measures the performance of directly-held investment properties (without leverage) that are green certified



REALPAC/IPD® CANADA QUARTERLY GREEN PROPERTY INDEX

RESULTS FOR THE YEAR TO MARCH 31, 2018

The REALPAC/IPD Canada Quarterly Green Property Index tracks the financial performance of those properties with a BOMA BESt or LEED rating relative to the rest of the market and in the year to March 2018 returned 6.2%.



REALPAC/IPD® CANADA QUARTERLY GREEN PROPERTY INDEX

	Total Return* 1 Year	Income Return* 1 Year	Capital Return* 1 Year	Annualized Total Return* 3 Years
All Rated Assets	4.2	4.8	1.3	7.9
All Rated BOMA BESt Assets	4.3	4.8	1.4	7.8
All Rated Retail (BOMA BESt) Assets	5.9	4.6	1.4	7.4
All Rated Office (BOMA BESt) Assets	4.3	5.2	1.1	4.3
All Rated Industrial (BOMA BESt) Assets	10.2	6.0	4.0	7.5
All Rated LEED Assets	5.5	5.1	0.4	5.6

* Figures are shown in %

REALPAC/IPD® CANADA QUARTERLY GREEN PROPERTY INDEX DATABASE PROFILE

	Capital Value \$m	Capital Value % of Total Index	Number of Properties	Number of Funds
All Property	150,429.2	100.0	2,418	44
Retail	41,112.0	40.6	430	35
Office	53,429.4	35.5	677	34
Industrial	15,364.9	10.2	927	27
All Rated Assets	66,418.4	44.1	531	27
All Rated BOMA BESt Assets	42,923.5	41.8	489	27
All Rated Retail (BOMA BESt) Assets	31,247.7	20.7	98	14
All Rated Office (BOMA BESt) Assets	28,544.7	19.0	249	24
All Rated Industrial (BOMA BESt) Assets	1,752.2	1.2	74	9

GREEN EQUITY INDEX

MSCI Global Green Building Index

Includes developed and emerging market large, mid and small cap companies that derive 50% or more of their revenues from products and services in Green Building.

MSCI GLOBAL GREEN BUILDING INDEX (USD)

The MSCI Global Green Building Index includes developed and emerging market large, mid and small cap companies that derive 50% or more of their revenues from products and services in Green Building.

CUMULATIVE INDEX PERFORMANCE - GROSS RETURNS (USD) (NOV 2008 - JUN 2018)



INDEX PERFORMANCE — GROSS RETURNS (N) (JUN 29, 2018)

	ANNUALIZED											
	1 Mo	3 Mo	1 Yr	YTD	3 Yr	5 Yr	10 Yr	Since Nov 28, 2008	Div Yld (N)	P/E	P/E Pwd	P/BV
MSCI Global Green Building	-2.29	-1.44	6.70	-3.71	6.50	11.86	na	14.66	4.40	9.71	15.96	1.09
MSCI World	-0.01	1.93	11.70	0.76	9.10	10.55	na	12.20	2.41	19.36	15.29	2.38
MSCI ACWI IM	-0.56	0.90	11.71	0.12	8.92	10.17	na	12.43	2.36	19.19	15.03	2.22

INDEX RISK AND RETURN CHARACTERISTICS (JUN 29, 2018)

	ANNUALIZED STD DEV (N) †						SHARPE RATIO ‡, 1		MAXIMUM DRAWDOWN	
	3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr	Since Nov 28, 2008	(N)	Period YYYY-MM-DD	
MSCI Global Green Building	53.38	14.10	13.63	na	0.46	0.85	na	na	19.15	2015-08-18—2016-06-27
MSCI World	2.33	10.44	10.04	na	0.91	1.00	na	0.86	17.44	2015-05-21—2016-02-11
MSCI ACWI IM	2.46	10.42	10.15	na	0.78	0.95	na	0.85	19.19	2015-05-21—2016-02-11

† Last 12 months ‡ Based on monthly gross returns data † Based on ICE LIBOR 1M

* DM countries include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK and the US. EM countries include: Brazil, China, Czech, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Russia, Qatar, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

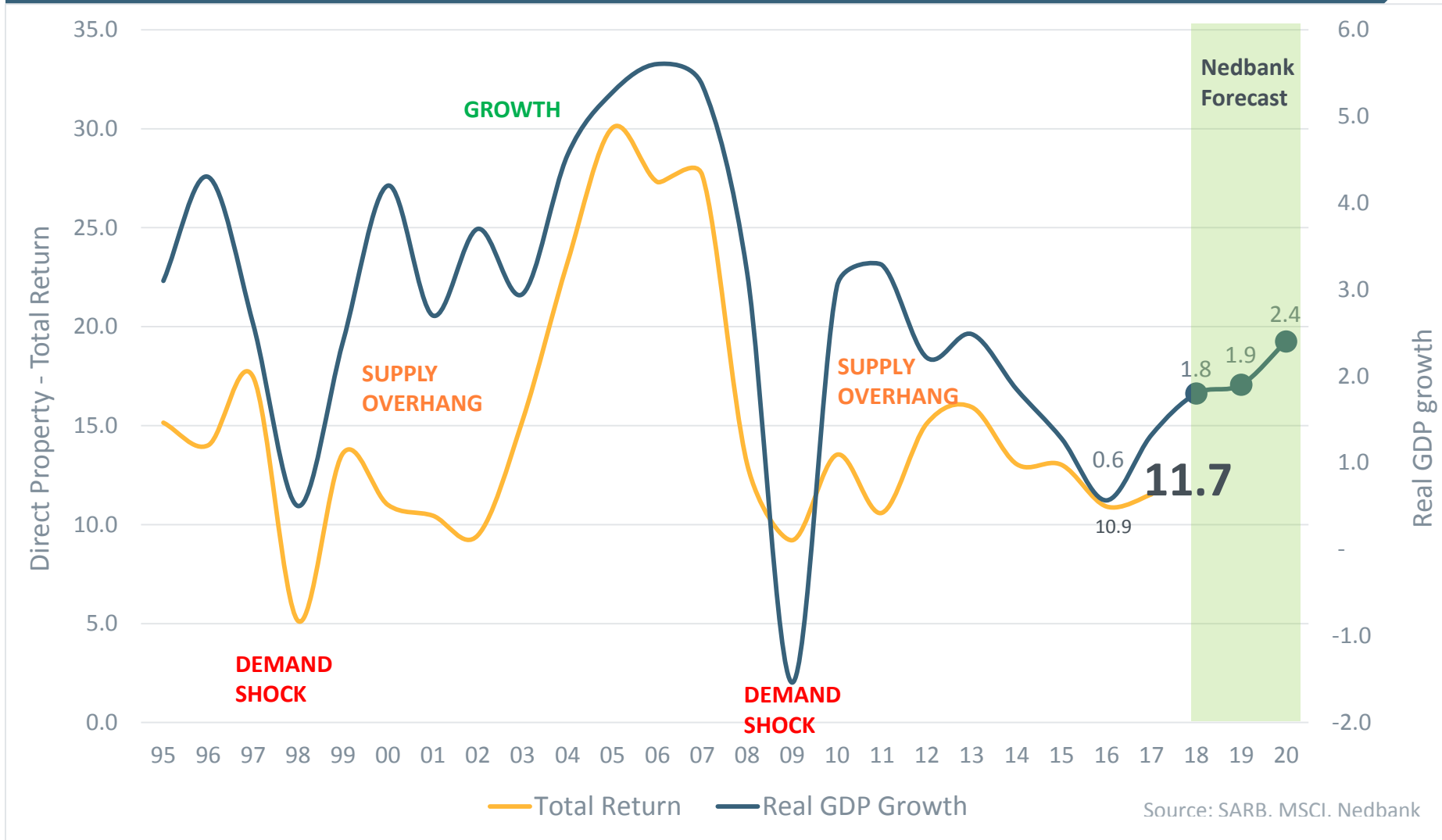
† The MSCI Global Green Building Index was launched on Jun 29, 2009. Data prior to the launch date is back-filled data (i.e. calculation of how the index might have performed over that time period had the index existed). There are frequently material differences between back-filled performance and actual results. Past performance – whether actual or back-filled – is no indication or guarantee of future performance.

APPROACH

IPD South Africa Annual Green Property Index

REAL ESTATE RETURNS & ECONOMIC GROWTH

WHERE TO FROM HERE FOR FUNDAMENTAL PROPERTY RETURNS



CONTEXT – GRANULAR APPROACH TO ACHIEVED NET INCOME

Basic Rent

+

Total Variable Recoveries

- Variable Electricity Recoveries
- Variable Municipal Recoveries
- Other Variable Recoveries

Gross Rental

+

Total Fixed Recoveries

- Municipal Fixed Electricity Recoveries
- Fixed Rates & Taxes Recoveries
- Fixed Recoveries
- Other Fixed Recoveries

Total Income

Less:

Total Operating Expenditure

- Building Management Cost
- Cleaning Expenditure
- Security Costs
- Garden Cost
- R&M: Air Conditioning
- R&M: Elevators and Escalators
- R&M: Building Expenditure
- Rates and Taxes
- Other Municipal/Utility Charges
- Electricity
- Non - Capex TI Costs
- Insurance
- Managing Costs
- Letting Fees and Commissions
- Bad Debts Written off
- Landlord Marketing Expense
- Other Operating Expenses

Net Income

SAMPLE SIZE – SA GREEN INDEX

PRIME & A-GRADE OFFICES; DEC-2017

1821

SOUTH AFRICA IPD ANNUAL
UNIVERSE

P & A GRADE
OFFICE SAMPLE

323

ALL GREEN
CERTIFIED

NON-GREEN
CERTIFIED

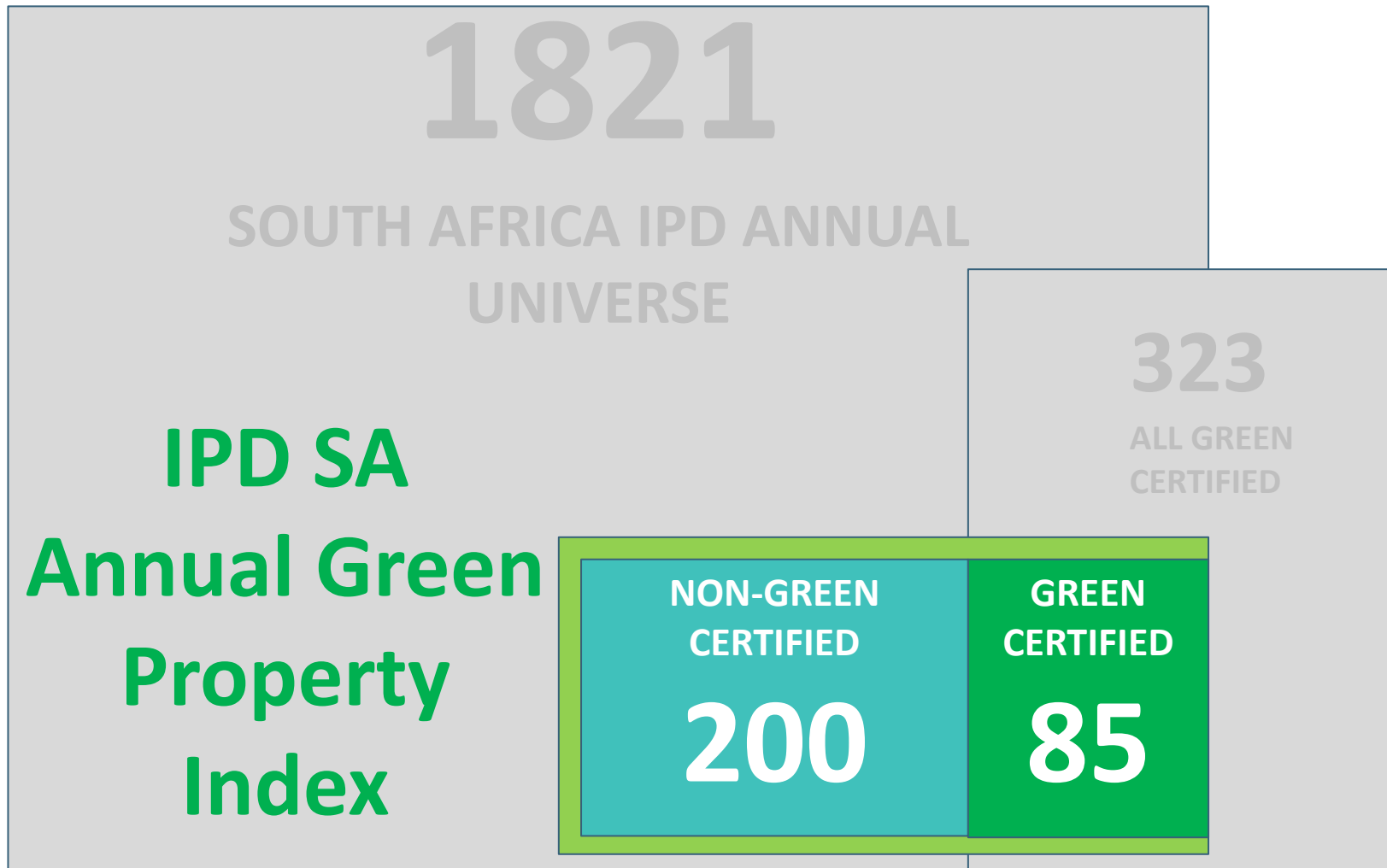
200

GREEN
CERTIFIED

85

SAMPLE SIZE – SA GREEN INDEX

PRIME & A-GRADE OFFICES; DEC-2017



SAMPLE SIZE – SA GREEN INDEX

PRIME & A-GRADE OFFICES; DEC-2017

	Capital Value (Rm)	Capital Value (% of total)	Number of Properties	Gross Lettable Area
Green Star Certified	20,481	37.7	85	911,274
Non-Green Certified	33,794	62.3	200	1,834,123

FINDINGS

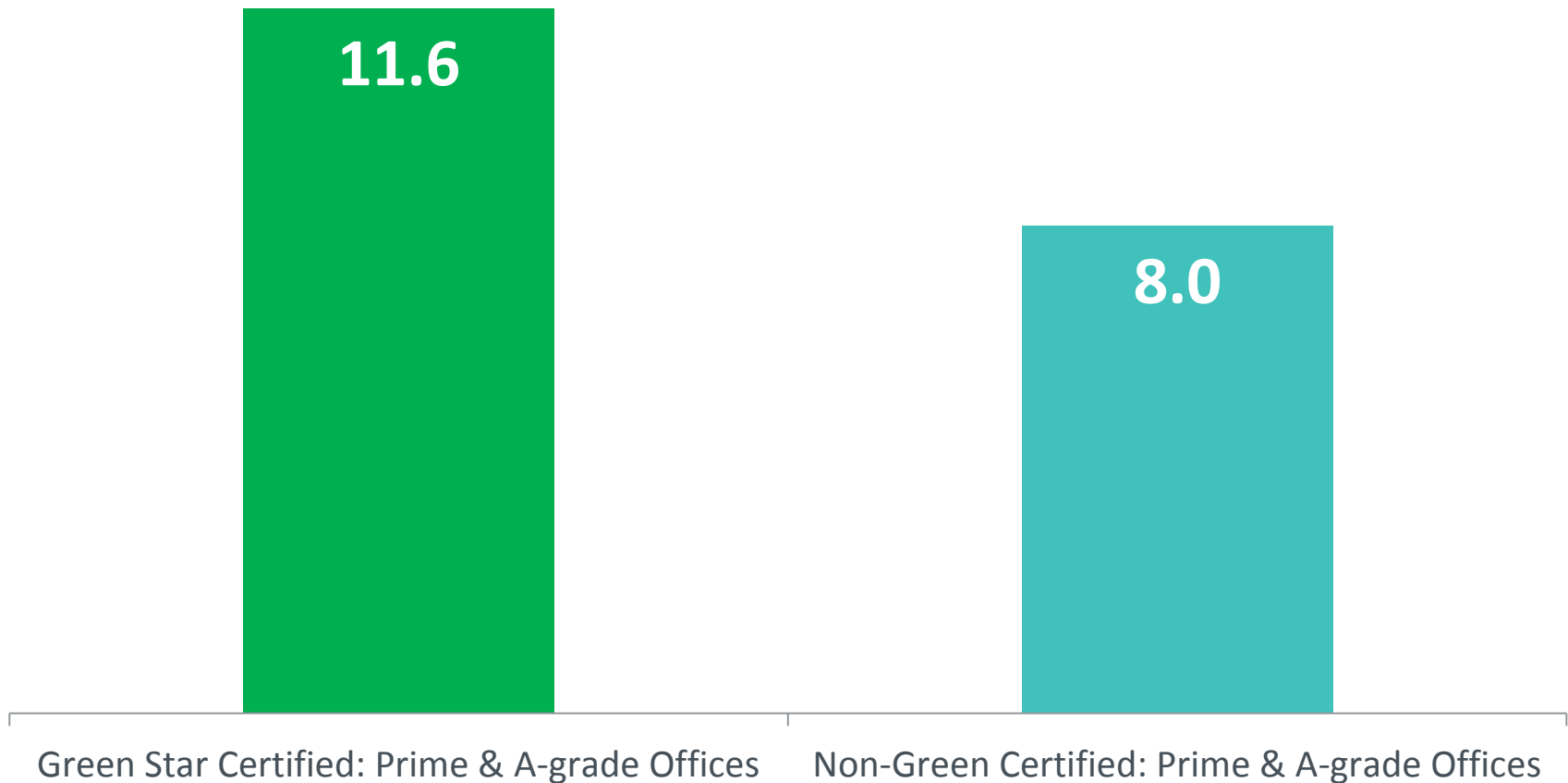
IPD South Africa Annual Green Property Index

GREEN STAR OFFICES HIGHER RETURN IN 2017

360BP OUTPERFORMANCE ON 2017 TOTAL RETURN

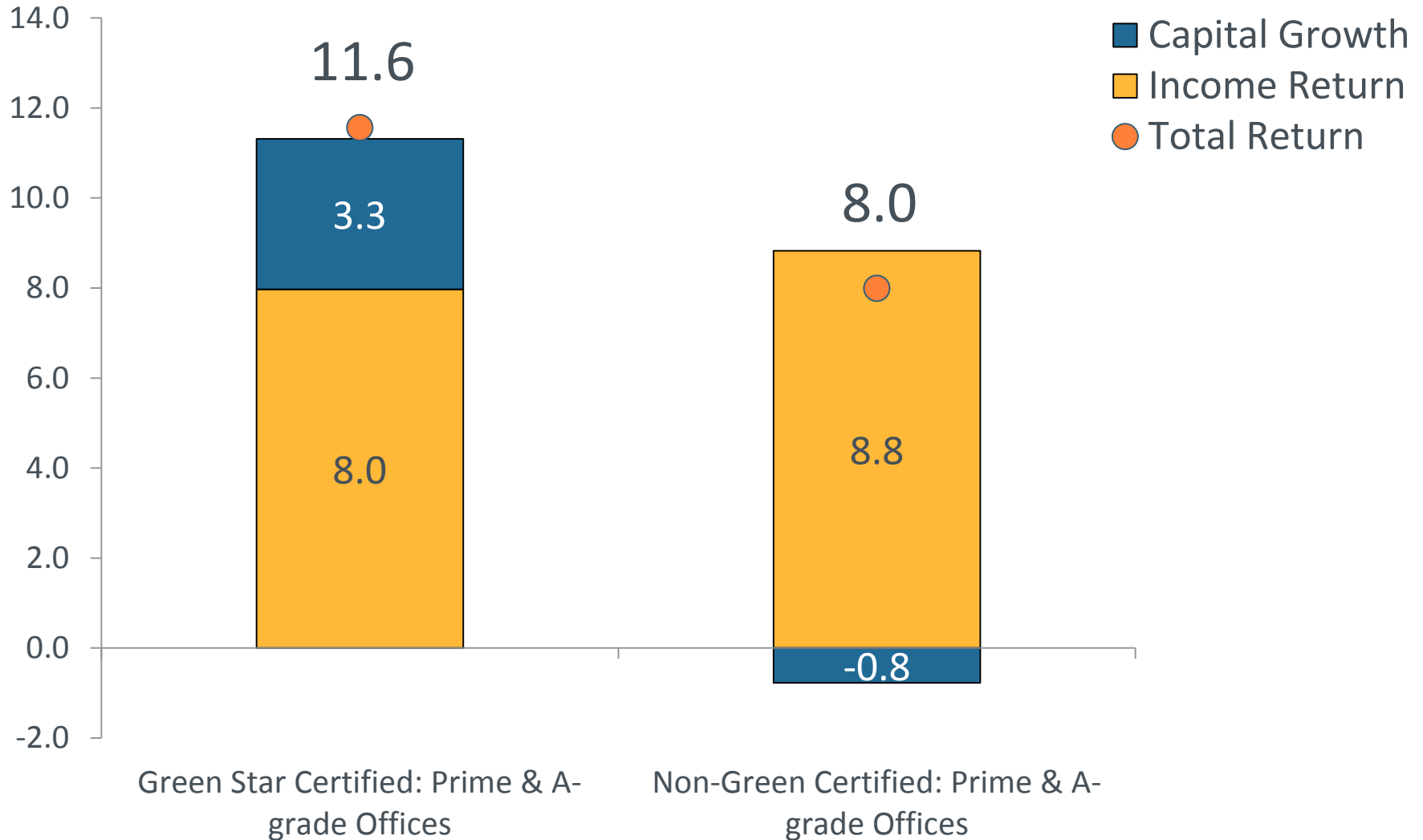
Total Return

%; Standing Investments; 2017



GREEN STAR OFFICES HIGHER RETURN IN 2017

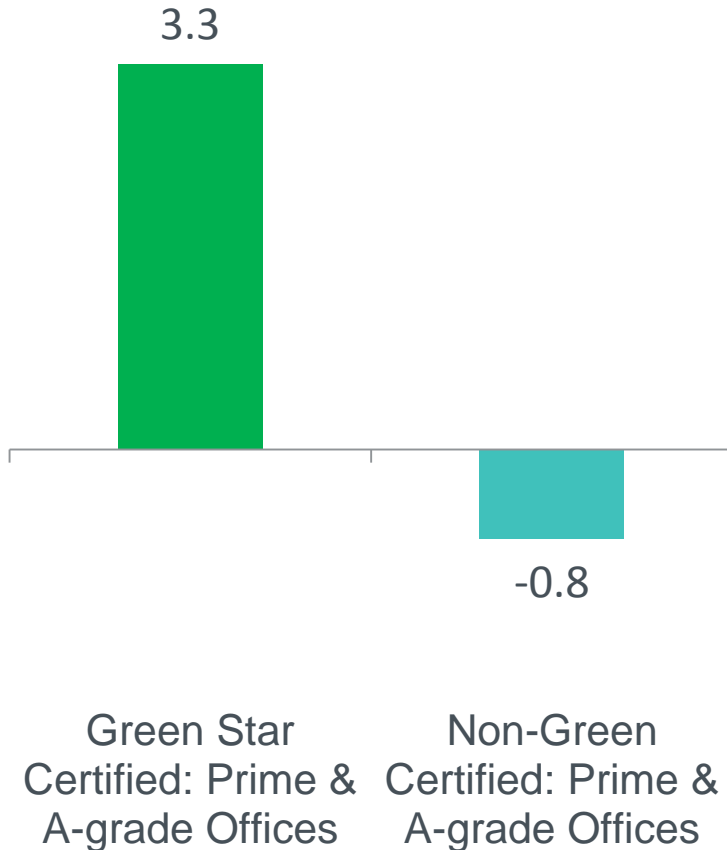
DRIVEN BY SUPERIOR CAPITAL GROWTH



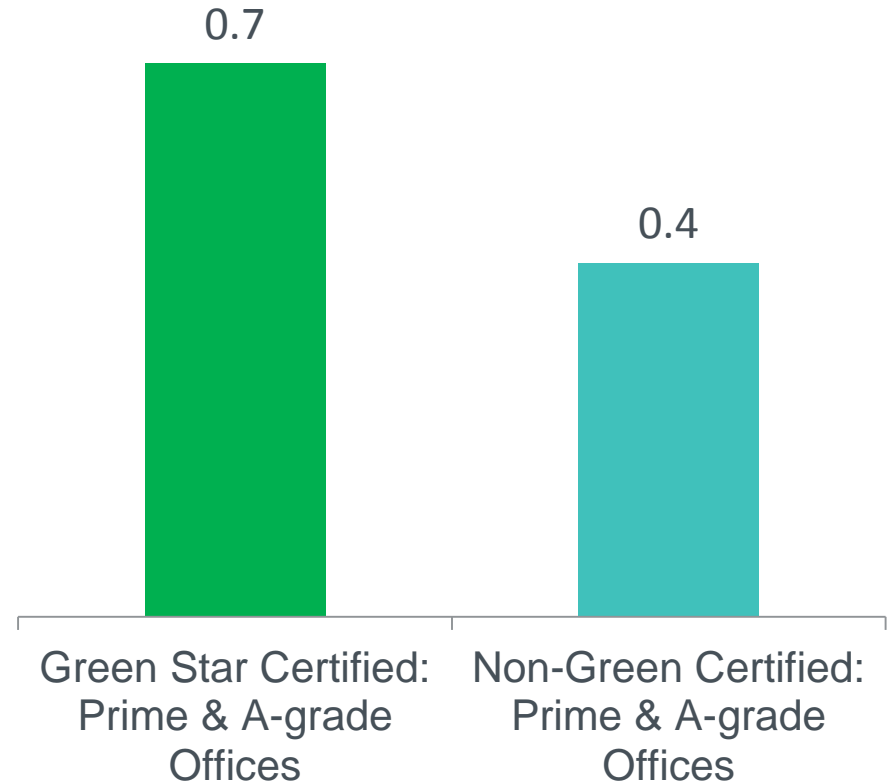
HIGHER CAPITAL GROWTH FOR GREEN PROPERTY

HIGHER CAPITAL GROWTH DESPITE HIGHER CAPEX

Capital Growth
%; 2017



Capital Expenditure
% of Capital Value



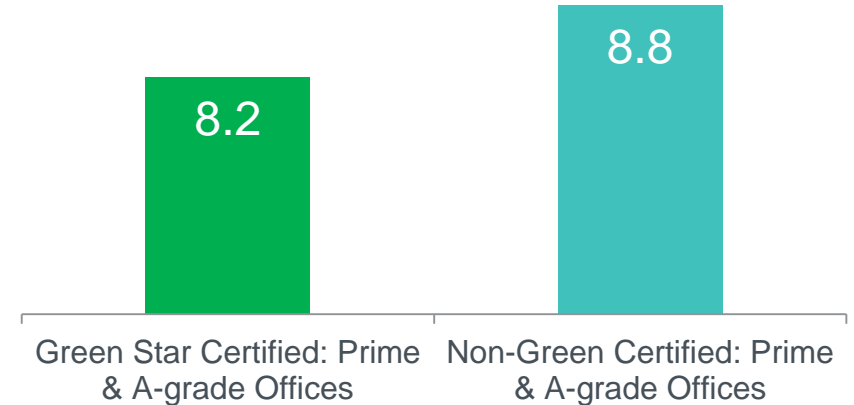
DRIVERS OF GREEN CAPITAL GROWTH

VALUATION METRICS & PROPERTY FUNDAMENTALS

Discount Rate



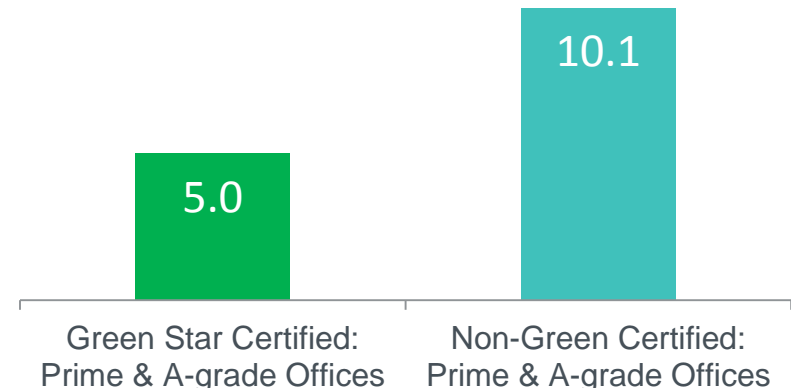
Capitalisation Rate



Net Income Growth



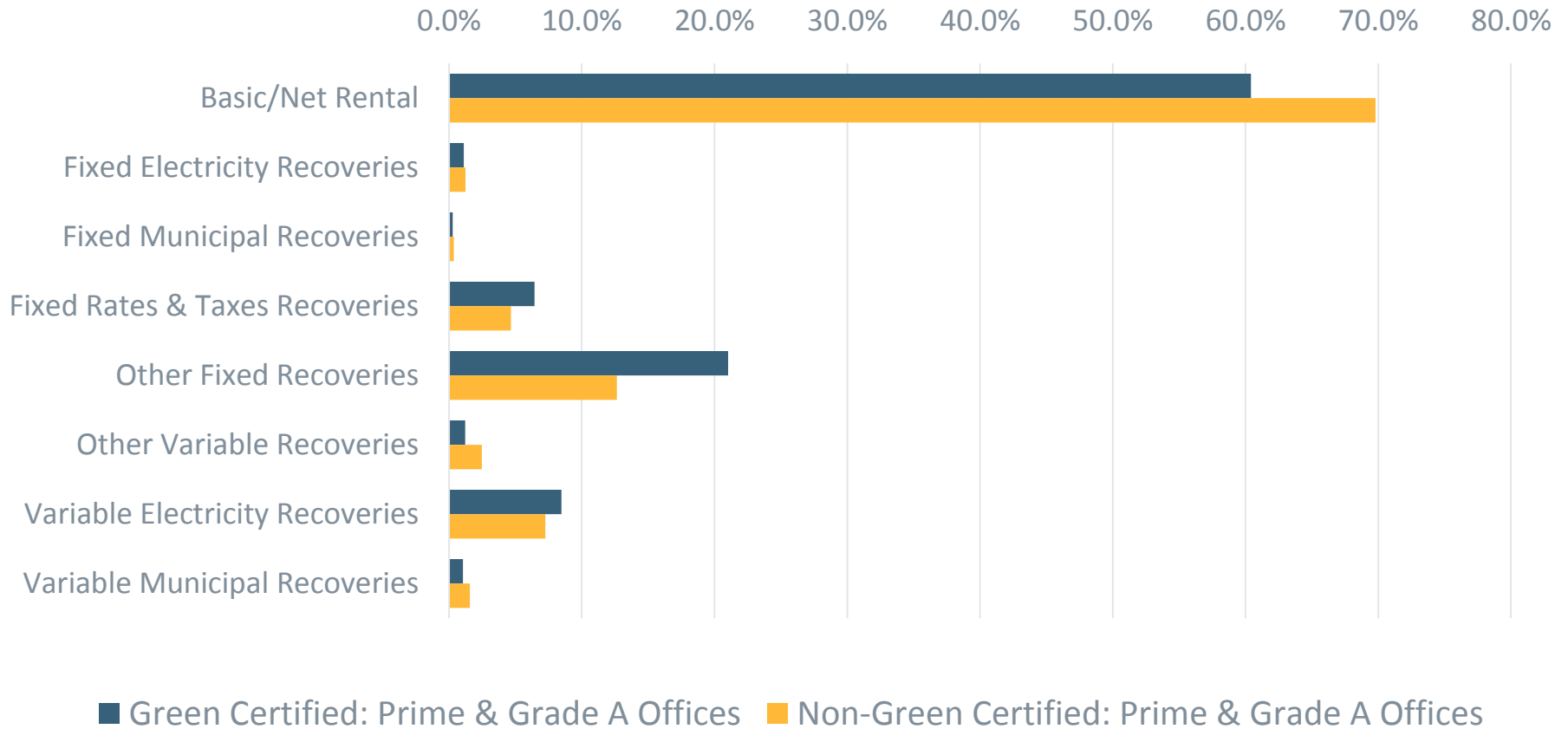
Vacancy Rate



GREEN INCOME= HIGHER WEIGHT IN RECOVERIES

LOWER % OF TOTAL INCOME FROM BASE RENTAL

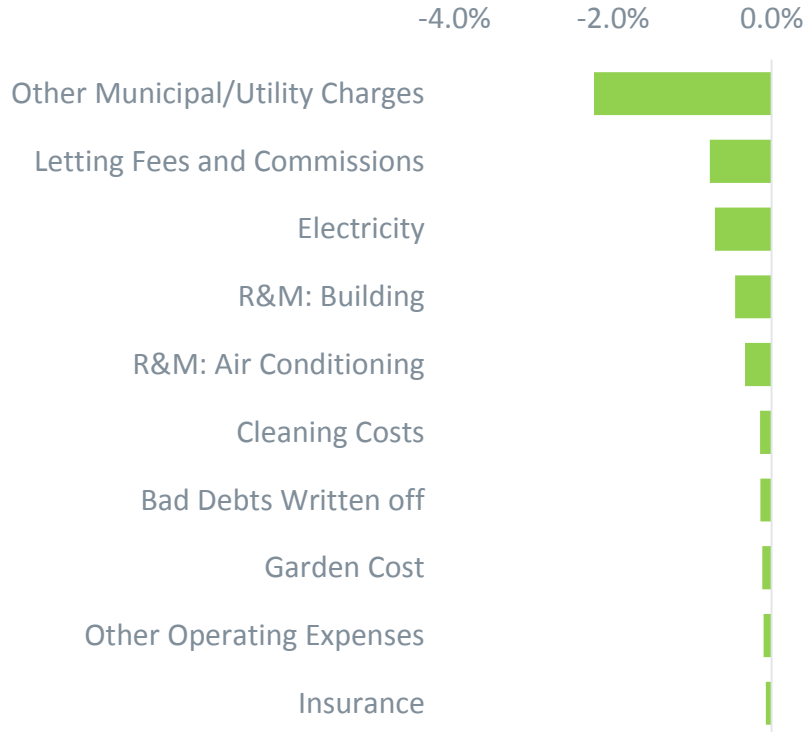
Income Categories as a % of Total Income



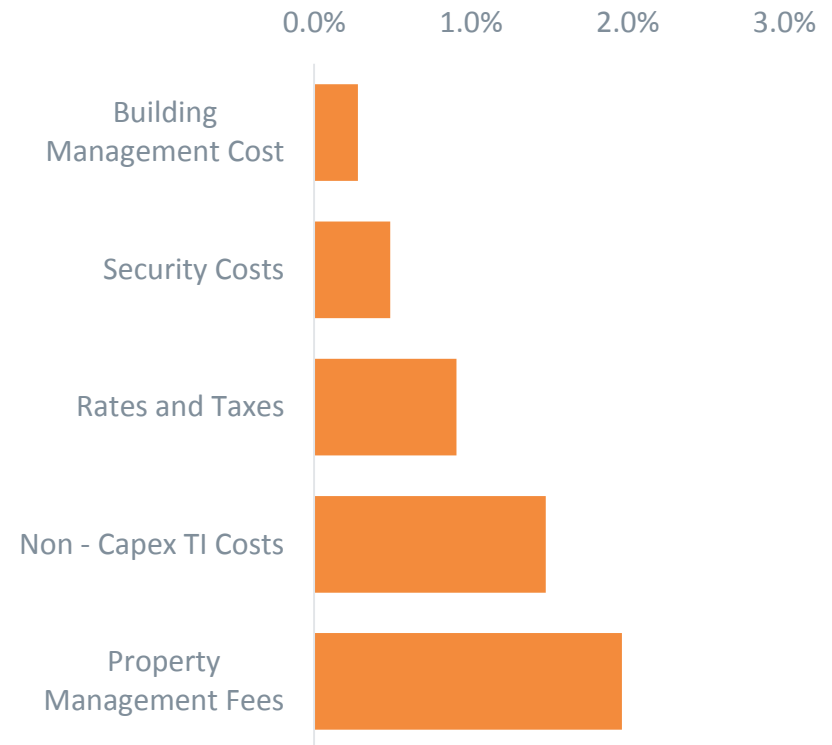
GREEN LOWER ELECTRICITY, WATER, GARDENS

OPS COST % OF TOTAL OPS COSTS – RELATIVE TO NON-GREEN

Green Offices **lower** on these categories



Green Offices **higher** on these categories

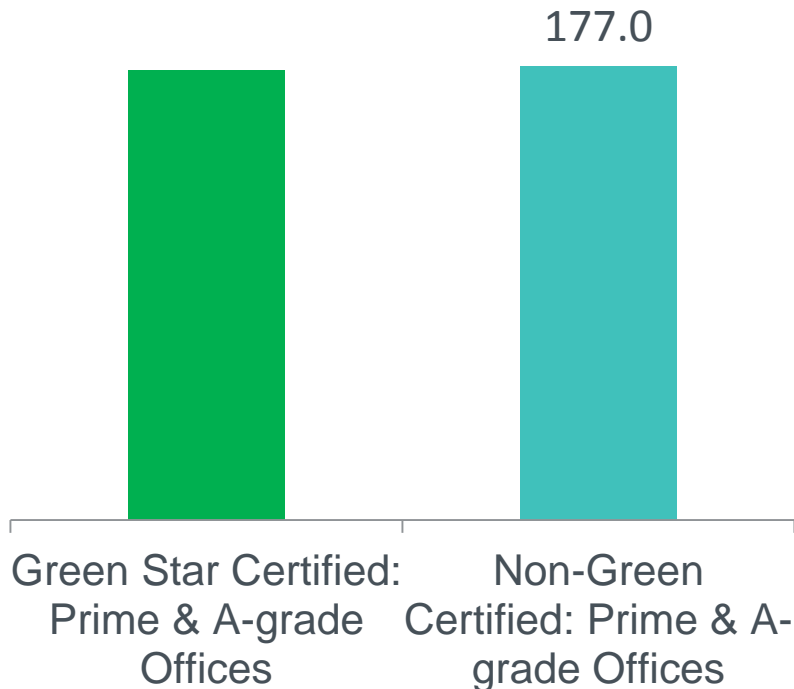


GREEN STAR CERTIFIED OFFICES MORE EFFICIENT

1% LESS ELECTRICITY & 24% LESS WATER THAN NONE-CERTIFIED

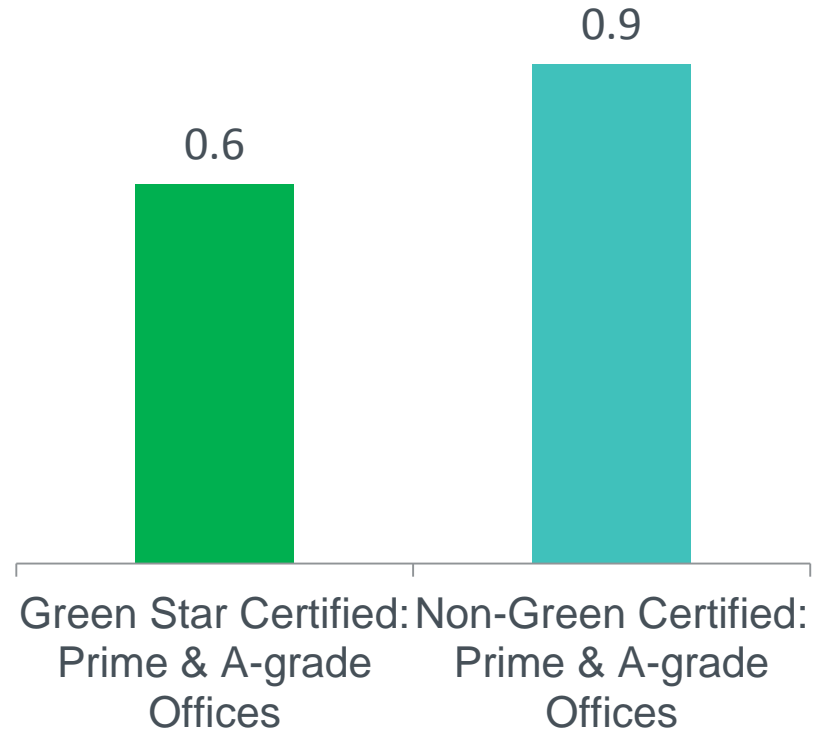
Electricity Usage

kWh/occupied sqm per annum



Water Usage

M3/occupied sqm per annum



INVESTOR PERSPECTIVE

Increasing Focus on Portfolio Risk & ESG Factors

2018 – ESG TRENDS TO WATCH



1

SIFTING FOR MANAGEMENT QUALITY IN EMERGING MARKETS

...use ESG signals to help navigate the evolving size and shape of the Emerging Markets investment universe. More than 15% of Emerging Markets domiciled constituents of the MSCI ACWI Index have ESG Ratings that eclipse their country's ESG Sovereign Ratings, making them country outperformers worth watching.



2

FIRST STEPS IN SCENARIO TESTING CLIMATE CHANGE

...expand their view of portfolio climate risk from company carbon footprint to macro exposures across asset classes. We found that at least 40% of each major asset class is exposed to countries at high risk to irreparable physical damage under a high warming scenario.

3

ACCELERATION OF ESG INTO FIXED INCOME INVESTING

...be catalyzed to adopt ESG factors in fixed income investments, as demand from leading asset owners to align their ESG frameworks across asset classes coincides with interest in how ESG factors can add value to credit analysis. Recent research on ESG and equity performance suggests that a company's ESG Rating could signal a form of "unmatured" event risk.

4

LOOKING BEYOND SUSTAINABILITY DISCLOSURE

...look to alternative data sources to balance the growing volume of corporate sustainability disclosure. In our own ESG Ratings, 65% of a company's rating on average is driven by data sources beyond voluntary disclosure.

5

THE YEAR OF THE HUMAN

...increasingly seek opportunities to invest in talent quality, as Artificial Intelligence (AI) redefines work tasks to require higher skilled human input. While good workforce data is hard to come by, we find evidence that companies with stronger human capital practices had better productivity growth than industry peers.

CONCLUSION

IPD South Africa Annual Green Property Index

CONCLUSIONS

- Green certified prime & A-grade offices produced a total return of 11.6% in 2017 – 360bps higher than non-certified P & A-offices
- Capital Growth drove outperformance (3.3% vs. -0.8%)
- Green offices had a higher capital growth despite higher capex
- Green office capital growth driven by superior valuation metrics & property fundamentals
 - Lower discount rate
 - Lower cap rate
 - higher net income/sqm
 - higher net income growth
 - lower vacancy rate
- Green certified prime & A-grade offices reported a 1% lower electricity usage per occupied square meter & a 24% lower water usage per occupied square meter.

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