

Commercial Property and Climate Change: Risks and Opportunities

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Total Environment Centre
Existing Buildings Project
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1. Innovest background
2. Operational cost exposures to climate change:
 - Energy
 - Water
 - Insurance
3. The growing appeal of green and sustainable buildings
 - Sector progress
 - Investor drivers

- Focus on environmental, social and governance (ESG) drivers of shareholder risk and value
- Core activities: specialized investment research, consulting, asset management sub-advisory services
- Largest ESG analyst team (50+)
- Research coverage: 2000 companies globally inc. 120+ in property sector
- \$1.1 billion in sub-advisory mandates
- Headquartered in New York with 7 offices in 6 countries
- 8 of the top 25 global asset managers in the world use Innovest research
- 70 clients globally including: UBS, HSBC, ABN AMRO, State Street, ING, ABP, BNP Paribas, CalPERS, Colonial First State
- Author of Carbon Disclosure Project, Global 100



Financial Capital 30%

- Four pillar approach to assessing 'Intangible Value'
- Over 120 qualitative and quantitative data points
- Measuring strategic risk management and opportunity

Intangible Capital 70%

Sustainable Governance

- Strategy
- Capability/ Adaptability
- Traditional governance practices

Eco-Value

- Quality of environmental management
- Environmental risks & Eco-efficiency
- Strategic profit opportunities

Human Capital

- Recruitment retention strategies
- Employee motivation
- Labor relations
- Innovation capacity
- Knowledge Development & Dissemination
- Health & Safety
- Progressive workplace practices

Stakeholder Capital

- Regulators & Policymakers
- Local communities
- NGOs
- Customer relationships
- Alliance partners
- Supply chain
- Social benefits of products & services

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Energy prices set to rise significantly:

- Climate change:
 - Supply interruptions - drought, water shortages, bushfires, extreme storms
 - Higher temperatures - growing electricity demand and higher peak demands
- Climate change policy:
 - Price on CO₂ from 2010 through emissions trading scheme
 - 60% emissions reduction by 2050, short term target announced soon
 - Uncertainty over price of carbon - \$20 or \$35 or \$50 per tonne CO₂ ?
 - Renewable energy target of 20% by 2020
- Commodity price rises:
 - oil, coal, gas in upward trajectories

- Water prices to rise:
 - Scientists predicting lower rainfall and higher evaporation
 - Continued and worsening water shortages and droughts to come
 - Major new infrastructure planned – desalination, water recycling, new reservoirs
- Recent water pricing announcements:
 - Sydney – prices to rise by one-third over 4yrs
 - Melbourne – prices to double over 5yrs

"The greatest risk facing insurers in the next four years and beyond is climate change."

~IAG CEO Mike Hawker, May 2006

- Greater frequency and severity of natural disasters:
 - More extreme storms, flooding, bushfires
 - Swiss Re research: Global insurance losses rising 12% per year
- Australian big 4 insurers' profits recently down 28% on storm losses
- Higher insurance premiums as a result
 - Insurance premiums generally based on models of historical payouts; becoming less predictive of future outcomes

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3. Green buildings – An international trend

Country	Government Initiatives	Industry Groups
Australia	The Australian Building Greenhouse Rating scheme (ABGR) Energy and water efficiency legislation Energy Star requirements Emissions trading scheme for property companies	Green Building Council of Australia (GBCA)
Canada		Canada Green Building Council, formed in 2003.
Hong Kong	Building & Energy Efficiency regulations (1995, 2000) HK BEAM – Building Environmental Assessment Method	The Hong Kong Professional Green Building Council.
India		Indian Green Building Council
International	UN Environment Program Green Building Initiative	World Green Building Council
Japan	Energy Efficiency Standards for REITs	Japanese Green Building Council
Mexico		Mexico Green Building Council
Spain	Construction standards including energy efficiency and solar energy	
UK	BREEAM – Building Research Establishment Environmental Assessment Method	UK Green Building Council
US	State and city-based energy and water efficiency initiatives LEED – Leadership in Energy and Environmental Design) Green Building Rating System	US Green Building Council

3. Green buildings – Progress so far

Innovest study in 2007 – ‘Green Listed Real Estate: A Growing Global Trend’

- Based on analysis of 106 REITs and REMDs worldwide

	Yes (%)	High Quality (%)	No (%)
Environment Policy	54	20	46
Energy Efficiency Initiatives	50	17	50
Green Building Certification	30	13	70
Water Efficiency Initiatives	35	10	65
Waste Management Initiatives	45	11	55
Sustainable Site Planning	20	5	80
Indoor Air Quality	28	5	72

- Increasing awareness of climate change at retail investor level
- Increasing recognition by investors that environmental issues represent material financial risks and early action provides financial benefits
- Carbon Disclosure Project
- UN Principles for Responsible Investment (PRI)
- Case Study: New Perennial Sustainable Global Property Securities Fund
 - A world first unit trust specialising in sustainable property
 - Uses Innovest's IVA research
 - Provides sustainability tilt to existing Perennial property offerings



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