

Property Market Forecasting – Valuation Implications



CRC CI Scholarship Advantages

- **OPPORTUNITY** – step away from fulltime work for research focus
- **ALIGNMENT** – affiliate research with industry / partner
- **PRACTICALITY** – generate results of practical use to industry / partner



CRC CI Scholarship Advantages

- **DRIVE** – research driven in association with CRC CI project
- **BELONGING** – research given place / support / facilities



Department of Public Works Portfolio

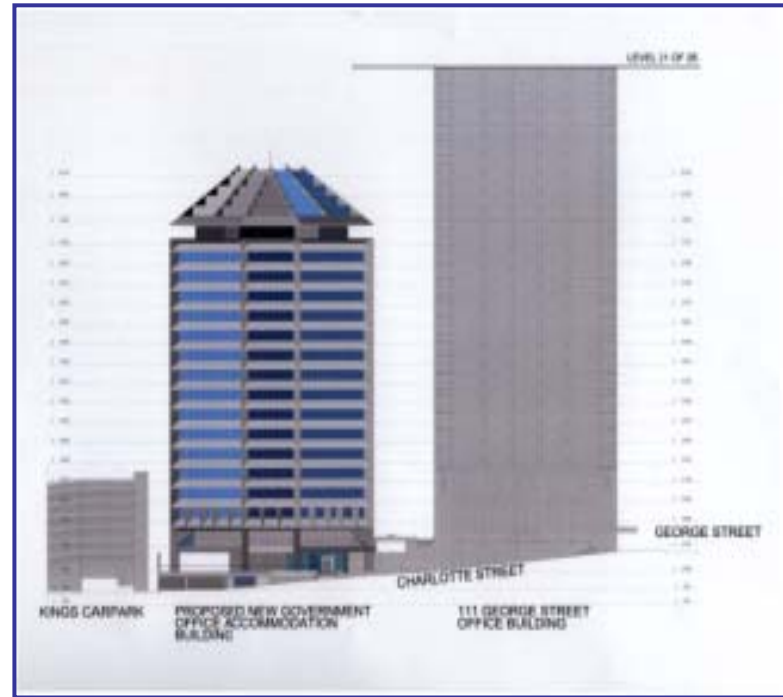


CRC Construction Innovation
BUILDING OUR FUTURE

Department of Public Works Portfolio



COMMISSARIAT STORES 1828



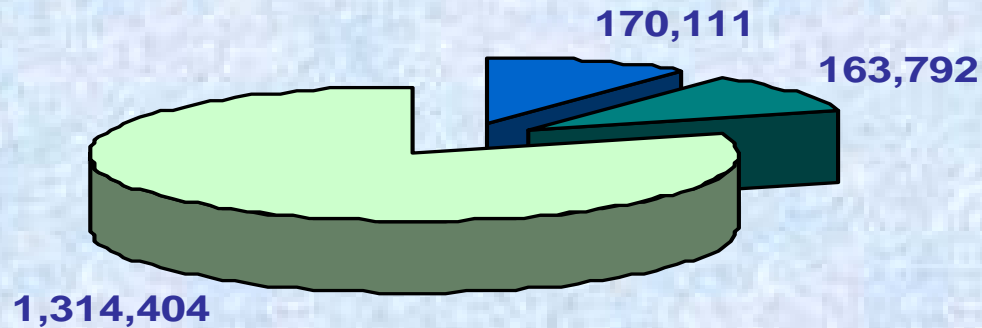
33 CHARLOTTE ST – UNDER CONSTRUCTION



Department of Public Works – Brisbane CBD Office Space

Brisbane CBD - DPW Controlled Office Space

Square Metres



■ DPW Owned ■ DPW Leased ■ Balance



Property Market Forecasts

- Modern valuation (DCF) methods require explicit property market and economic forecasts
- DCF method discounts projected building net income back to derive a present value
- Forecasts required for building rents, opex, capex, vacancy rates and property market net returns

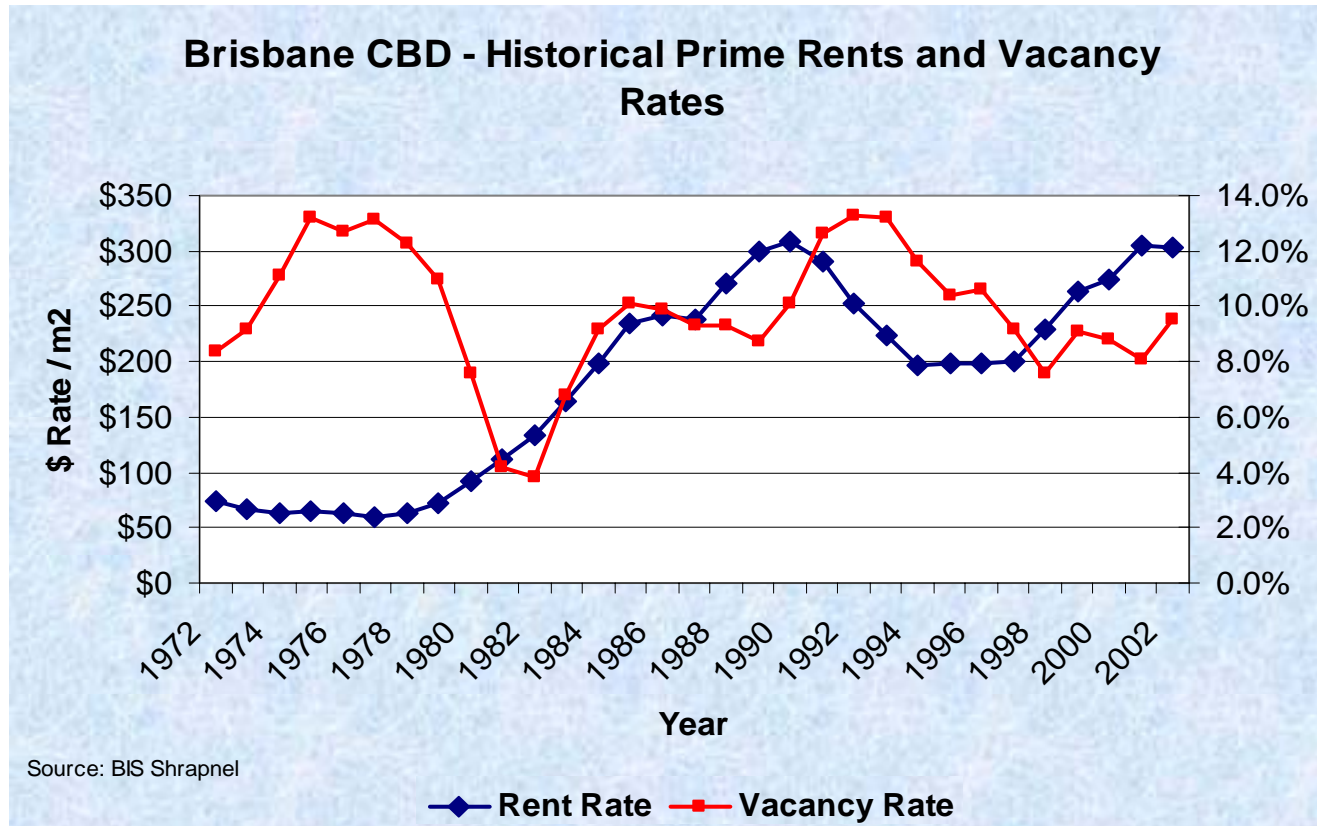


Setting the Scene

- Commercial property market is volatile
- Australian lenders wrote off about \$28B during 1991-1994 (Sykes 1996)
- Large proportion of losses attributable to commercial property market “bust” (Kummerow 1999)
- Commercial property market “bust” was a recession driver



Setting the Scene

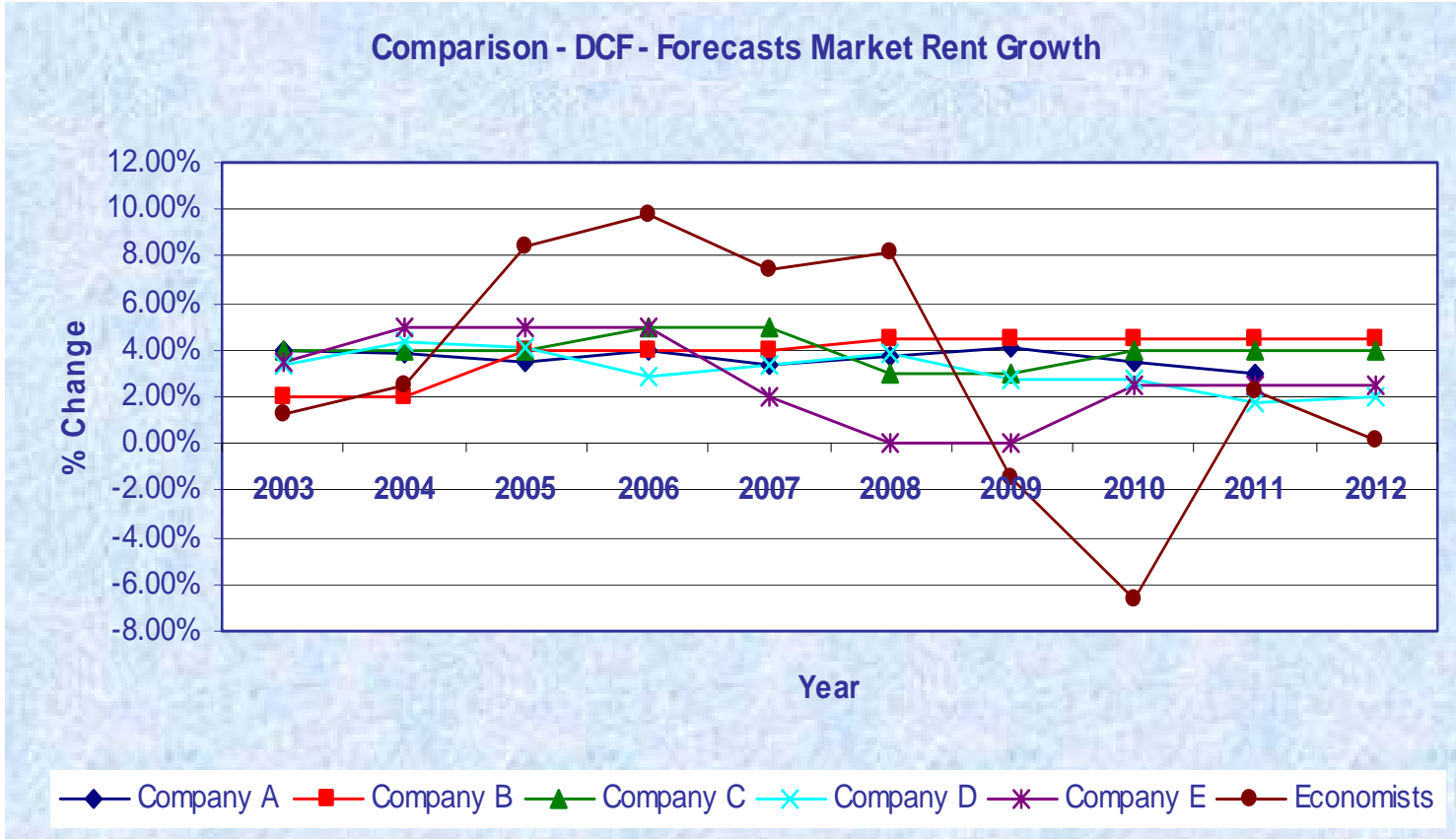


Setting the Scene

- Office space oversupply contributor to market “bust”
- Development based on viability studies containing forecasts
- Over-optimistic linear, compounding rent forecasts induced office space oversupply
- Requirement for rational property market forecasts based on leading indicators



Property Industry Rent Forecasts



Brisbane Historical / Forecast Rents

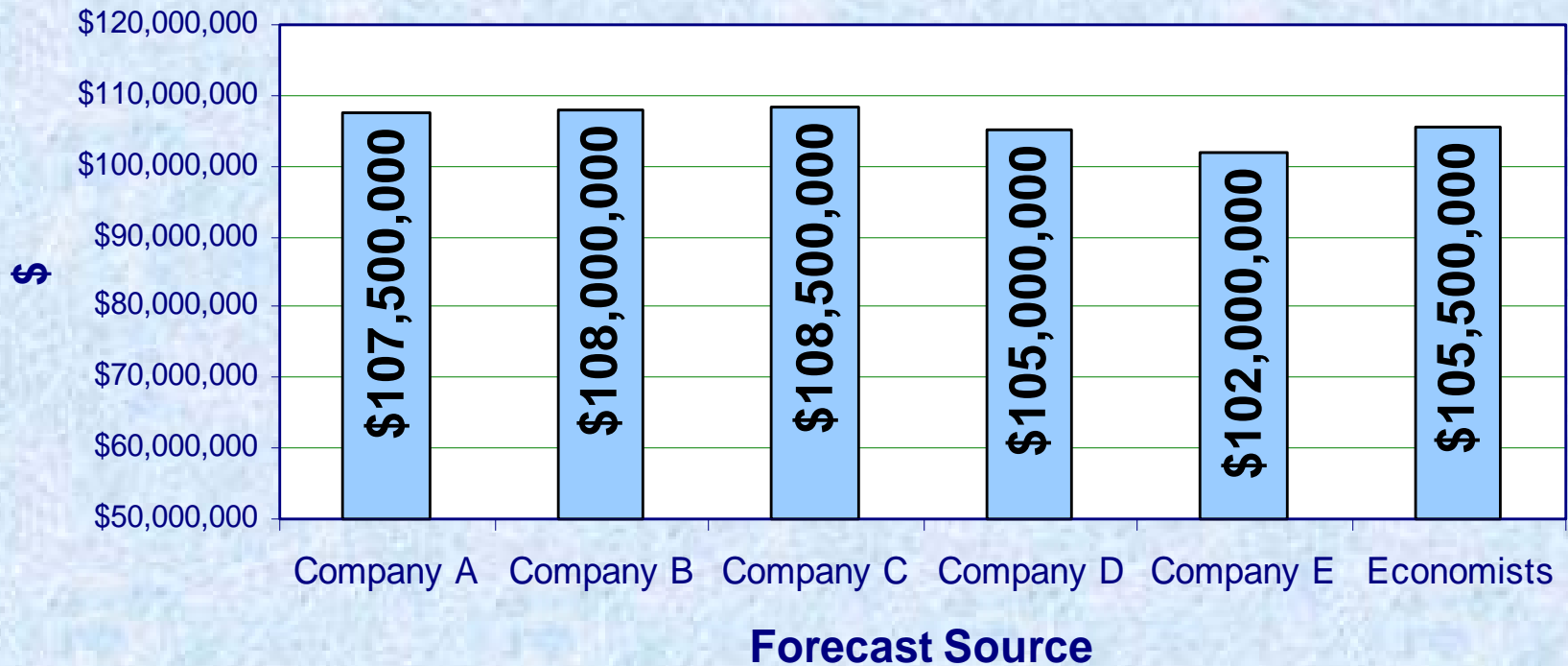
Brisbane CBD Prime Rent Rate - Historical & Valuers' Forecasts



SOURCE - BIS Shrapnel & CBD Valuation Firms

Forecasts - Valuation Impacts

DCF Results Comparison - Alternate Rent & CPI Forecasts



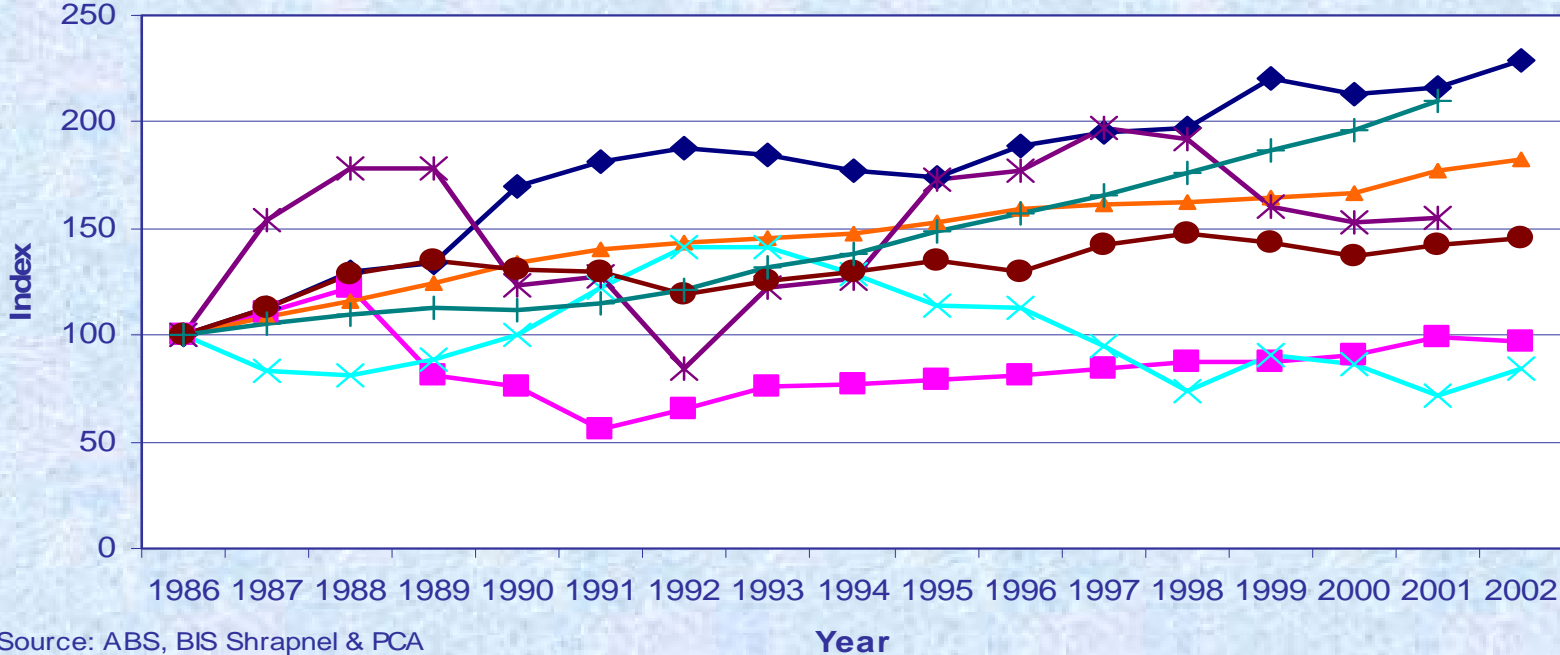
Forecasting Models

- Extensive US and UK research on property market forecasting models
- Dominant models rely on series of regression equations
- Process of identifying which leading indicators generate property market change
- Equations map historical change over several property cycles



Correlation – Property & Economic Factors

Historical Relativity - Property and Economic Factors

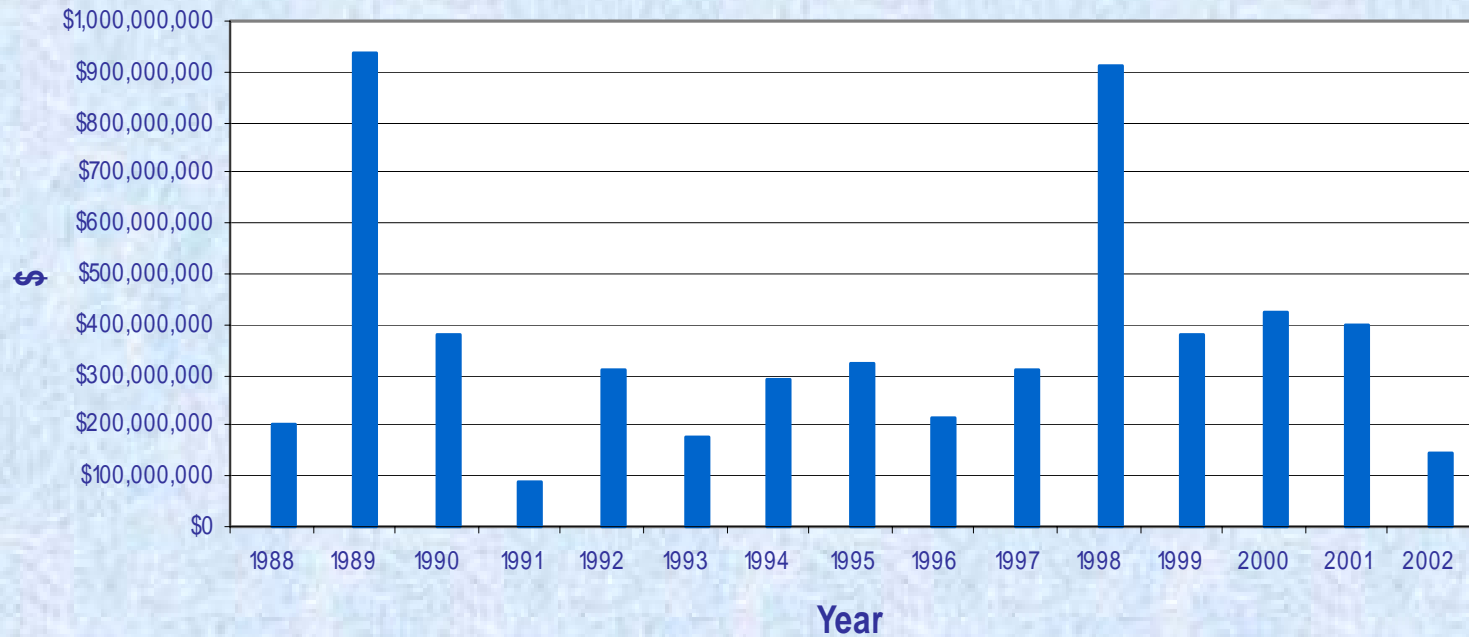


Source: ABS, BIS Shrapnel & PCA

- ◆ Building Net Income
- Effective Rents
- ▲ Inflation
- ✕ Vacancies
- ✱ Construction
- Employment
- + Gross State Product

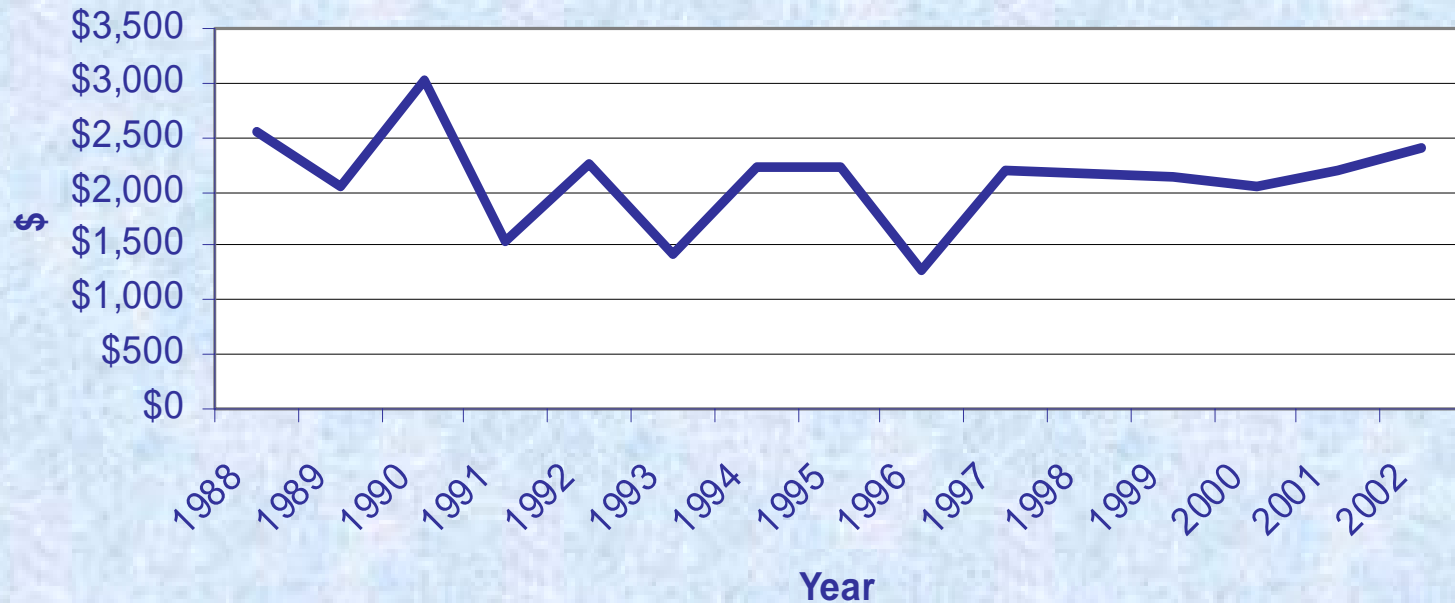
Brisbane CBD Commercial Property Market

Brisbane CBD Sales - Total Value Commercial Property Sales



Brisbane CBD Commercial Property Market

Brisbane CBD Sales - Median Rates / m2 NLA - Office Buildings > 3,000m2



Department of Natural Resources & Mines – Mapping Technology



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SCALE: 1 : 5000
Datum: WGS84

CRD 5 Rates per m²
SVS request - Mary Conley

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Research Plan

- Literature Search and Review (Completed)
- Forecasting Model Identification (Completed – 22 American and British models found)
- Brisbane Market Data Collection (Completed)
- Model Testing (Underway – Completion September 2003)
- Property Professional Survey (Interviews – Staff from 14 Firms – August 2003)



Research Plan

- **Brisbane CBD Value Mapping Development** (Work Underway with DNRM – Completion September 2003)
- **Software Development, Testing & Linkages** (Completion December 2003)
- **International Journal Article** (Completion January 2004)
- **Thesis Write-Up** (Underway – Completion and Submission February 2004)
- **Possible Articulation to PhD** (February 2004)

