# Moody's Analytics Forecasts of RCA Commercial Property Price Indices

Moody's Analytics forecasts of Real Capital Analytics' RCA CPPI™ offer unique insight into commercial real estate prices. The forecasts span local, state, regional, and national levels, to help investors reduce exposure to risk, improve portfolio performance and enhance economic return.

## The Challenge: Accurately Estimating Future Property Prices

In a rapidly changing economic environment, investors are challenged with forecasting commercial property valuations for risk assessment, stress testing, portfolio management, and property research. Many firms lack robust, consistent models and data that fully account for economic trends and important variables that drive market and property values. As a result, they may underestimate or overestimate commercial property valuations.

## The Solution: Trusted Forecasts of Commercial Properties based on Data from an Authoritative Source

In partnership with Moody's Investors Service, RCA launched the first repeat-sales regression national indices for commercial real estate in 2007. The Moody's/REAL CPPI™ (replaced in 2012 by the Moody's/RCA CPPI), quickly became an industry benchmark for investors. Moody's Analytics augments this service by further applying more than 20 years of trusted regional economic expertise to forecast commercial property prices under alternative scenarios.

RCA measures of U.S. commercial real estate price changes are calculated monthly and published quarterly using an advanced repeat-sale regression methodology of qualified repeat sale observations. This academically published econometric methodology provides rigorous, objective, and replicable information about the movement of commercial property prices over time. This methodology is widely acknowledged as the most accurate way to track real estate price movements.

Moody's Analytics forecasts are calculated using a mean reversion model incorporating the long-term equilibrium price supported by a given market's underlying fundamentals. Our models are fully informed by national and regional analysis, accounting for interrelationships among all sectors of the economy, including production, spending, financial, and labor markets. This approach enables us to produce standard forecast metrics that are comparable across geographies. The forecasts account for short-term factors, such as interest rate changes and employment, and are available under standard alternative or regulatory scenarios for insight in stressed conditions.
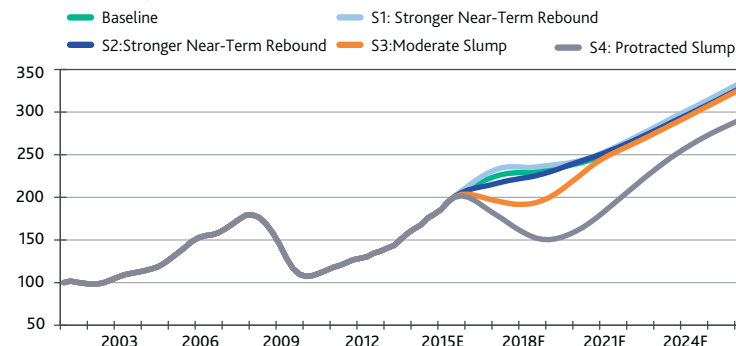
**FORECASTS ACROSS MARKETS**
RCA U.S. Commercial Property Price Indices, 2000 Q4=100
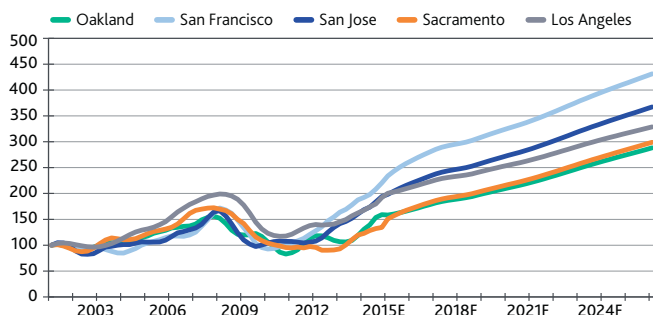


**FORECASTS UNDER ALTERNATIVE SCENARIOS**
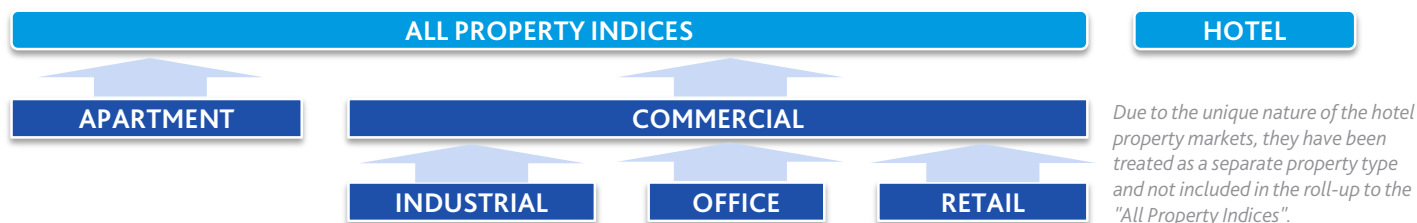RCA U.S. All Property CPPI, 2000Q4=100

## Applications

» Use for strategy, valuation and risk assessment, investment analytics, portfolio management and research
» Evaluate prices across all market and property types
» Compare trends across regions, states, metros and sub-metro areas
» Identify risks and opportunities in normal and stressed scenarios
» Manage CRE portfolios for customer retention and marketing
» Use as input for your stress testing models

## Key Features

» Model identifies the long-term price supported by market fundamentals and several short-term factors
» Forecasts available under standard alternative scenarios, regulatory scenarios, and idiosyncratic scenarios
» Forecasts and alternative scenarios updated monthly
» Historical data updated quarterly
» Data from an authoritative source

## Coverage & Features

| ALL PROPERTY INDICES | | HOTEL |
|---|---|---|

| APARTMENT | COMMERCIAL |
|---|---|

| INDUSTRIAL | OFFICE | RETAIL |
|---|---|---|

*Due to the unique nature of the hotel property markets, they have been treated as a separate property type and not included in the roll-up to the "All Property Indices".*

**THE U.S.**
**All Property Indices + Breakouts for Apartment**: Garden, Large Garden, Small Garden, Mid/High Rise, **Commercial**: Industrial (Flex, Single Tenant, Warehouse, Warehouse Large and Small), Office (Central Business District, Suburban, Medical, Single Tenant), Retail (Anchored Large and Small, Single Tenant, Unanchored) **and Hotel** (Full Service, Limited Service)

**REGIONS**
**All Property Indices + Breakouts for Apartment, Commercial, Retail, Office, Industrial**: Northeast/Mid-Atlantic, West, Midwest, Southeast, Southwest

**SUB-REGIONS**
**All Property Indices + Breakouts for Apartment, Commercial**: Midwest excluding Chicago, Southeast excluding Atlanta/Florida

**STATES**
**All Property Indices**: Arizona, California, Colorado, Connecticut, Florida, Georgia, Illinois, Massachusetts, Maryland, Minnesota, North Carolina, New Jersey, Nevada, New York, Ohio, Pennsylvania, Tennessee, Texas, Virginia, Washington

**METROPOLITAN AREAS**
**All Property Indices + Breakouts for Apartment & Commercial**: Atlanta, Boston, Chicago, Denver, Washington DC, Houston/ Dallas/Austin, Jacksonville, Las Vegas, Los Angeles, Miami, New York City, Orlando, Philadelphia/Baltimore, Phoenix, Sacramento, San Diego, Seattle, Oakland, San Jose, San Francisco (Metro Area, Metro Division), Tampa

**SUB-METROPOLITAN AREAS**
**All Property Indices + Breakouts for Apartment & Commercial**: Los Angeles: Orange County, LA County, Central Business District New York: Boroughs, Manhattan, Midtown, Suburbs
**Office**: New York: Midtown, Washington DC: Arlington

**MARKET AGGREGATES**
**All Property Indices + Breakouts for Central Business District, Suburban, Large Suburban, Small Suburban**:
» Aggregate index of major metro areas: Boston, Chicago, Los Angeles, New York, San Francisco and Washington D.C.
» Aggregate index of all other metro areas.

# About Moody's Analytics

Moody's Analytics, a unit of Moody's Corporation, helps capital markets and credit risk management professionals worldwide respond to an evolving marketplace with confidence. The company offers unique tools and best practices for measuring and managing risk through expertise and experience in credit analysis, economic research and financial risk management. By offering leading-edge software and advisory services, as well as the proprietary credit research produced by Moody's Investors Service, Moody's Analytics integrates and customizes its offerings to address specific business challenges.

## MOODY'S ANALYTICS