

# CBRE Econometric Advisors Forecasting & Analytics

CBRE forecasting and analytics are driven by economists and leveraged by market makers. We synthesize macro factors and leading indicators into actionable national, sector and market research.

## Coverage and Property Types

- United States major markets and submarkets for office, industrial, retail, apartment and hotel
- Canada major markets and submarkets for office and industrial
- Europe major markets for office

## Time Series Data Concepts/Scenarios

- supply, demand, rents, vacancy
- gross income, NOI, cap rate
- population, employment, income
- time series historical updated quarterly
- annual or quarterly frequencies
- baseline, Moody's, upside, downside, severe downside forecast out 10 years updated quarterly

## Summary Statistics

- under construction total count/sf, multi-tenant and single-tenant count/sf
- availability rate
- gross and net asking rents
- building count and stock
- completion rate, completions multi/single

## Delivery

- web platform with quarterly updates for licensed authorized users
- data views, data extracts, map concepts, peer selection tool, data warehouse connection tool
- save and export functions

## Thought Leadership and Support

- sector economists, macro economists
- sector heads of research
- field directors of research and LOB contacts
- client care network

## Documentation

- methodology papers
- quarterly assumptions and forecast narratives
- quarterly narrative outlooks by property type
- quarterly investment outlook
- backtest papers
- metro definitions
- user guides

## Advantage is CBRE

Put our perspectives and connections to work for you with commercial and cultural insight aligned with intellectual capital and experience to fuel informed real estate decision-making.

# CBRE Econometric Advisors Forecasting & Analytics

CBRE Econometric Advisors monitors and analyzes trends in historical CRE data in order to forecast real estate market fundamentals across markets and sectors. Our forecasts provide insight as clients evaluate the risks and opportunities that market changes may represent for their investments' performance. We also model prototypical gross income, NOI and cap rate performance to help you benchmark investments.

	US OFFICE	US INDUSTRIAL	US RETAIL	US APARTMENT
<b># of Markets and Submarkets Covered</b>	Major Markets: 63 Submarkets: 858	Major Markets: 57 Submarkets: 577	Major Markets: 60 Submarkets: 587	Major Markets: 62 Submarkets: 848
<b>Market Classifications</b>	All Classes, Class A, Class B/C	All, Warehouse, Manufacturing, R&D, Other	Total Retail, Lifestyle & Mall, Nghbd Community & Strip, Power	All Classes, Class A, Class B/C coming in Q2 2016
<b>Industry Drivers</b>	Total Employment, Ofc-using financial activities, Ofc-using services, Population	Total Employment, Mfg, Distribution, Population	Total Employment, Population, Total Personal Income	Total Employment, Ofc-using financial activities, Ofc-using services, Mfg, Distribution, Population, Total Personal Income
<b>Time Series History (based on rents)</b>	Min 9 years Max 35 years	Min 12 years Max 36 years	Min 20 years Max 27 years	Min 22 years Max 22 years
<b>Supply/Demand</b>	Under Construction, Stock (multi and single), Completions (multi and single), Net Absorption	Under Construction, Stock, Completions, Net Absorption	Under Construction, Stock, Completions, Net Absorption	Under Construction, Rentable Stock, Rentable Completions, Net Absorption
<b>Vacancy /Availability</b>	Total Vacancy, Direct Vacancy, Sublet Vacancy, Total Available, Vacancy Rate	Availability by size, Availability Rate	Availability Rate	Avg. Vacancy history by building type, Vacancy by Age, Vacancy Rate
<b>Rental Rates</b>	Asking Rents (net and gross), Effective Rents, Real Economic Rent, Rent Index, Real Rent Index	Asking Rents (net and gross), Economic Rent, Real Economic Rent, Rent Index, Real Rent Index	Asking Rents (net and gross), Nominal Rent Index, Real Rent Index, Nominal Economic Rent, Real Economic Rent	Rent Per Unit, Avg. Rent by Unit Type, Avg. Rent by Age, Real Rent Per Unit

All historical and forecast data and our accompanying analysis are updated quarterly.

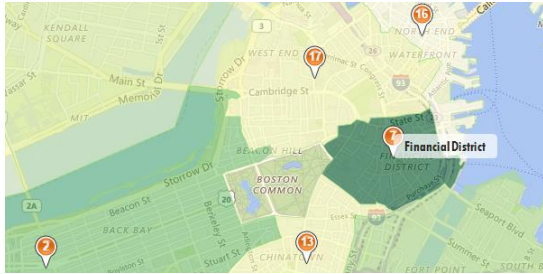
Learn more: [cbre-ea.com](http://cbre-ea.com) or call us: +1-617-912-5200

# Why CBRE Forecasting

Assemble data in a flash.

Choose from a myriad of reports within our economic, fundamentals and capital markets data views. Sort, refine, and export data views to workbooks.

Submarket	Inventory		Completions		Net Absorption	
	Bldgs (#)	NRA (SF x 1000)	Current Qtr (SF x 1000)	YTD (SF x 1000)	Current Qtr (SF x 1000)	YTD (SF x 1000)
Downtown Atlanta	21	12,046	0	0	-217	-217
Midtown Atlanta	30	12,451	0	0	149	149
Subtotal: Downtown	51	24,497	0	0	-68	-68
Buckhead	43	14,015	44	44	-45	-45
Central Perimeter	64	18,372	0	0	-129	-129
North Fulton	84	12,278	0	0	-37	-37
Northeast Atlanta	54	5,746	0	0	126	126
Northlake	19	2,994	0	0	12	12
Northwest Atlanta	63	14,223	0	0	100	100
South Atlanta	0	785	0	0	5	5



Display data views geographically.

See how various data concepts look on a map to compare and contrast performance at market and submarket levels. Save and export your customized maps for easy reference.

Leverage CBRE's proprietary effective rent index.

Compare rent movements across markets and over time accounting for characteristics, composition of stock, and changes in building characteristics. See the market through CBRE's unique prism with lease transactions data not found elsewhere.



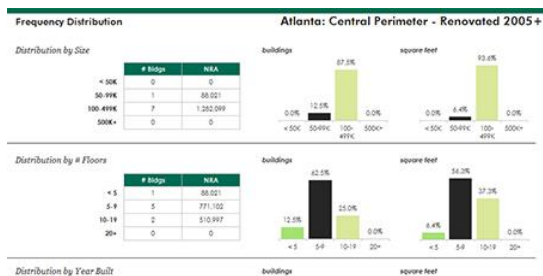
Put our perspective and connections to work for you.

Hear directly from our thought leaders and economists. We are constantly observing trends, monitoring the leading indicators, and analyzing the data. Ask questions and hear our perspectives on major trends affecting performance.

Speed your work with a direct connection to our data warehouse.

Managing your analytical tools is easy when you can pour data directly into your workbooks. Create queries and update your workbooks at the click of a button. Clone, edit, and share queries with your team.

	Boston	New York	Chicago	Dallas	San Francisco	Washington
2006	27.12	57.07	23.84	17.72	21.40	
2007	30.00	68.40	23.83	18.71	25.20	
2008	32.71	70.64	24.96	19.67	28.10	
2009	27.73	56.00	23.78	18.28	22.15	
2010	26.86	52.97	22.87	17.68	21.51	
2011	27.33	56.84	22.29	17.78	24.93	



Identify trends for a subset of properties.

Select a group of properties by address and property characteristics. A snapshot, historical trends and frequency distributions are at your fingertips. Save and export features make it easy to refresh your reports.

# FREQUENTLY ASKED QUESTIONS

CBRE offers unique insight, experience and solutions to serve the needs of real estate occupiers and investors. Our professionals, unsurpassed in their local market expertise, are supported by industry-leading econometric forecasting, market research and specialized expertise to help clients make informed decisions.

## **How do I gain access?**

Through a license agreement. For details and associated fees, please call us at +1-617-912-5200 or submit a request via our "Become a Client" form on our website.

## **How often do you offer product training?**

Daily. We offer WebEx training regularly, just let us know what you need help with and we'd be happy to schedule training at your convenience.

## **What if I have questions about our data?**

We are responsive. We'll connect you to the appropriate economist or point you to our documentation.

## **What is your market coverage?**

- United States major markets and submarkets for office, industrial, retail, apartment and hotel
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## **What data concepts are included?**

- Supply, demand, rents, vacancy
- Gross income, NOI, cap rate
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## **Do you perform backtesting?**

Econometric modeling and forecasting, like any science, typically improves with time. Throughout our lengthy history, we have repeatedly backtested our forecasting models. Indeed, as the result of our exercise in backtesting, we enhance our forecasting models at appropriate intervals. We evaluate the quality of our models at regular intervals and to keep our clients informed of additional enhancements if we make them.

## **Do you share our forecasting methodology?**

The core of our approach reflects the modeling of standard economic theory that relates new capital formation (investment) to asset prices. We provide clients with concise written explanations of our approach.

## **How do you compile your data?**

For all property types, as well as capital markets fundamentals, our data are extracted and compiled from internal CBRE sources, including our local market researchers, as well as third-party data vendors. For quality assurance, our data undergo an extensive process of validation before they are used for forecasting. Both our history and forecasts pass through a final process of quality assurance before they are posted to our data warehouse.

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