PwC Real Estate Market Outlook 2011

Topics

PwC Real Estate Investor Survey™

Emerging Trends In Real Estate®

Q&A
32\textsuperscript{nd} Annual Edition
600 survey participants
Over 275 interviewees
Released: Oct 2010

8\textsuperscript{th} Annual Edition
339 survey participants
Over 290 interviewees
Scheduled: Feb 2011

5\textsuperscript{th} Annual Edition
150 survey participants
Over 130 interviewees
Released: Dec 2010
Emerging Trends in Real Estate 2011

- Longest published annual real estate outlook—32nd consecutive year
- “Most predictive industry forecast”
- Based on surveys/interviews with 875 industry leaders
- Written with “quotes”
- Jointly published by PwC and ULI
Recent Survey Conducted by PwC of over 200 Market Participants

Do You Believe the Recover is Real?

- YES
- NO
Emerging Trends in Real Estate 2011 (cont.)

Entering the Era of Less

- Shrunken industry
- Lower returns
- Restrained development prospects
- Reduced credit availability
- Change in the profit model – the end of the endless refi
- Price discovery at lower levels

Recognition of substantial losses
(30-50% haircuts on asset values)
The Good News: In 2011 We Are Off the Bottom

- Improved prospects for all markets and property sectors (albeit not great)
- Cash rich investors have plenty of options
- More buying opportunities
- Strengthening lender balance sheets
- Refinancing for owners with cash flows
- Recalibrated return expectations
ET 2010 Investment Barometer – Buy / Sell / Hold

This is what it looked like last year – an all time low sell rating

Source: Emerging Trends in Real Estate 2011 survey.
Note: Based on U.S. respondents only.
ET 2011 Investment Barometer – Buy / Sell / Hold

This year the gap closes

Source: Emerging Trends in Real Estate 2011 survey.
Note: Based on U.S. respondents only.
**Flight to Quality**

“A deep canyon separates ‘trophy’ and ‘trash’ assets ... with a lot more trash... The best properties have cash flow and that’s what buyers and lenders want.”

“in a low interest rate environment – all I want is a good safe coupon”
**Ample Availability of Equity**

Real Estate Capital Market Balance Forecast 2011

<table>
<thead>
<tr>
<th>Substantially Undersupplied</th>
<th>Moderately Undersupplied</th>
<th>In Balance</th>
<th>Moderately Oversupplied</th>
<th>Substantially Oversupplied</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.9%</td>
<td>20%</td>
<td>10%</td>
<td>32.7%</td>
<td>22.5%</td>
</tr>
</tbody>
</table>

“Investors with *dry powder* have plenty of options”

Source: *Emerging Trends in Real Estate 2011* survey.
Note: Based on US respondents only.
More Quotes......

“There’s equity out there .. but it's far from abundant”

“What does the market need? Equity to fix the capital stack”
Still Limited Availability of Debt

- Substantially Undersupplied: 46.1%
- Moderately Undersupplied: 32.8%
- In Balance: 13.7%
- Substantially Oversupplied: 1.6%
- Moderately Oversupplied: 5.7%

Source: Emerging Trends in Real Estate 2011 survey.
Note: Based on US respondents only.
## Outlook for Loan Underwriting in 2011

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Rigorous</td>
<td>32.8%</td>
</tr>
<tr>
<td>Remains the Same</td>
<td>40.6%</td>
</tr>
<tr>
<td>More Rigorous</td>
<td>26.6%</td>
</tr>
</tbody>
</table>

Source: *Emerging Trends in Real Estate 2011* survey.
Note: Based on US respondents only.
Underwriting Standards

Source: Emerging Trends in Real Estate 2010 survey.
Note: Based on U.S. respondents only.
Yet Loan Maturates Continue to Hang Over the Market

Approximately $1.4 Trillion in Commercial Real Estate Debt Set to Mature Through 2013, and $2.8 Trillion Through 2020

<table>
<thead>
<tr>
<th>$ Bn Maturity Year</th>
<th>Banks* Core CRE</th>
<th>Multi-family</th>
<th>Const. Lands</th>
<th>CMBS Conduit</th>
<th>Floater</th>
<th>Life Cos.</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>$167.4</td>
<td>$35.4</td>
<td>$376.7</td>
<td>$38.9</td>
<td>$15.3</td>
<td>$18.0</td>
<td>$58.4</td>
<td>$710.0</td>
</tr>
<tr>
<td>2012</td>
<td>172.7</td>
<td>36.5</td>
<td></td>
<td>56.7</td>
<td>19.2</td>
<td>19.5</td>
<td>63.3</td>
<td>367.9</td>
</tr>
<tr>
<td>2013</td>
<td>165.9</td>
<td>35.1</td>
<td></td>
<td>42.5</td>
<td>1.1</td>
<td>20.3</td>
<td>63.1</td>
<td>328.0</td>
</tr>
<tr>
<td>2014</td>
<td>139.5</td>
<td>29.5</td>
<td></td>
<td>53.7</td>
<td>0.5</td>
<td>19.3</td>
<td>60.1</td>
<td>302.6</td>
</tr>
<tr>
<td>2015</td>
<td>113.4</td>
<td>24.0</td>
<td></td>
<td>101.3</td>
<td>1.3</td>
<td>18.2</td>
<td>51.6</td>
<td>309.7</td>
</tr>
<tr>
<td>2016</td>
<td>77.8</td>
<td>16.5</td>
<td></td>
<td>135.8</td>
<td>0.1</td>
<td>17.7</td>
<td>45.7</td>
<td>236.6</td>
</tr>
<tr>
<td>2017</td>
<td>60.1</td>
<td>12.7</td>
<td></td>
<td>136.3</td>
<td>0.2</td>
<td>16.9</td>
<td>39.0</td>
<td>265.1</td>
</tr>
<tr>
<td>2018</td>
<td>42.9</td>
<td>9.1</td>
<td></td>
<td>7.1</td>
<td></td>
<td>14.9</td>
<td>33.5</td>
<td>107.5</td>
</tr>
<tr>
<td>2019</td>
<td>30.7</td>
<td>6.5</td>
<td></td>
<td>4.0</td>
<td></td>
<td>12.4</td>
<td>24.2</td>
<td>77.8</td>
</tr>
<tr>
<td>2020</td>
<td>22.4</td>
<td>4.7</td>
<td></td>
<td>3.1</td>
<td></td>
<td>9.7</td>
<td>15.8</td>
<td>55.8</td>
</tr>
<tr>
<td>Total</td>
<td>$992.8</td>
<td>$209.9</td>
<td>$376.7</td>
<td>$579.3</td>
<td>$37.5</td>
<td>$167.0</td>
<td>$454.7</td>
<td>$2,817.9</td>
</tr>
</tbody>
</table>

*Banks maturity profile is an MS estimate

Source: Foresight Analytics, SNL, Inter, Trepp, Morgan Stanley

Average LTV's as of 2011 by Vintage Under Our Base Case Scenario

“"The mountain of maturities keeps me up at night”"
The era of EXTEND and PRETEND is over – it's now AMMEND and EXTEND
### Prospects Obtaining (Re)Financing

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Rich Investors/Class A</td>
<td>Very Good</td>
</tr>
<tr>
<td>Credit Stretched Owners/Class B+</td>
<td>Good and improving</td>
</tr>
<tr>
<td>Underwater Borrowers/Class B/B-</td>
<td>Problematic</td>
</tr>
<tr>
<td>Underwater Borrowers/Class C</td>
<td>Ouch</td>
</tr>
</tbody>
</table>

“The better your collateral – the more proceeds you can finance”
CMBS Redux ???

US CMBS Issuance

* Forecast based on Emerging Trends interviews

Wishful thinking?
Return Outlook

“After a 30% to 40% loss it could take a long time to make up ground.”

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core private unleveraged</td>
<td>7.5%</td>
</tr>
<tr>
<td>REITs</td>
<td>8.2%</td>
</tr>
<tr>
<td>Opportunity</td>
<td>Mid-teens</td>
</tr>
</tbody>
</table>
“It’s very hard to get 15% to 20% rates of return without more risk and more leverage. The Real Estate Business today is more about cash flow and keeping assets leased.”

“After a decade of anemic stock market returns – high single digits in Real Estate aren't so bad”
Doubting US Economy

- Outsized personal and government debt
- High unemployment
- Stagnating wages
- Consumption down, savings up
According to Those Surveyed – The Shape of Recovery

No Way  Hopefully  Probably  Help
V  U  Reverse  DD

“Regardless of the shape, the [recovery] will be jobless”
“It’s All About Jobs”

- Global competition: America’s high cost labor market loses to lower cost places
- Internet/Telcom: Manufacturing jobs losses now extend to service and tech sectors
- Firms learn to operate profitably - with fewer workers in less space
- Jobs shift to lower paying *right to work* states
- Technology eliminates many traditional middle class jobs
- States/local government cut workers to balance budgets
Real Estate Demand Formula

Less jobs = Less demand for space
• Absorption will be slow
• Thankfully the days of spec construction are over
**Inflation v. Deflation**

- Interest rates stay low, increase longer-term
- As Fed prints money, inflation is in our future
- Hard assets like real estate benefit, if demand picks up
- Beware another asset bubble, if rates stay down too long – the “bubblette”

Source: Emerging Trends in Real Estate 2011 survey.
Note: Based on US respondents only.

“If deflation occurs we’re all in the wrong business.”
Markets to Watch
Survey #1: Washington DC

Historical Rating

<table>
<thead>
<tr>
<th>Year</th>
<th>Rating</th>
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<tbody>
<tr>
<td>2001</td>
<td>6.6</td>
</tr>
<tr>
<td>2002</td>
<td>6.7</td>
</tr>
<tr>
<td>2003</td>
<td>6.7</td>
</tr>
<tr>
<td>2004</td>
<td>6.7</td>
</tr>
<tr>
<td>2005</td>
<td>6.9</td>
</tr>
<tr>
<td>2006</td>
<td>6.9</td>
</tr>
<tr>
<td>2007</td>
<td>6.6</td>
</tr>
<tr>
<td>2008</td>
<td>6.7</td>
</tr>
<tr>
<td>2009</td>
<td>6.1</td>
</tr>
<tr>
<td>2010</td>
<td>6.2</td>
</tr>
<tr>
<td>2011</td>
<td>7.0</td>
</tr>
</tbody>
</table>
Survey #2: New York

Historical Rating
### Survey Top 10

<table>
<thead>
<tr>
<th>Rank</th>
<th>City</th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Washington D.C.</td>
<td>7.01</td>
<td>6.17</td>
</tr>
<tr>
<td>2</td>
<td>New York (4th in 2010)</td>
<td>6.56</td>
<td>5.41</td>
</tr>
<tr>
<td>3</td>
<td>San Francisco (2nd in 2010)</td>
<td>6.34</td>
<td>5.57</td>
</tr>
<tr>
<td>4</td>
<td>Boston (3rd in 2010)</td>
<td>6.20</td>
<td>5.42</td>
</tr>
<tr>
<td>5</td>
<td>Seattle (6th in 2010)</td>
<td>6.09</td>
<td>5.31</td>
</tr>
<tr>
<td>6</td>
<td>Houston (5th in 2010)</td>
<td>6.02</td>
<td>5.39</td>
</tr>
<tr>
<td>7</td>
<td>Los Angeles (9th in 2010)</td>
<td>5.84</td>
<td>5.13</td>
</tr>
<tr>
<td>8</td>
<td>San Diego (10th in 2010)</td>
<td>5.63</td>
<td>5.04</td>
</tr>
<tr>
<td>9</td>
<td>Denver (7th in 2010)</td>
<td>5.58</td>
<td>5.21</td>
</tr>
<tr>
<td>10</td>
<td>Dallas (8th in 2010)</td>
<td>5.50</td>
<td>5.10</td>
</tr>
</tbody>
</table>
Our Color Coding

- Green = Not So Bad
- Yellow = Not so Good
- Red = Really Bad
Markets: 2010 and 2011 Emerging Trends

Source: Emerging Trends in Real Estate 2010 and 2011 surveys
Southwest

Source: Emerging Trends in Real Estate 2011 survey

Las Vegas 3.44
Phoenix 4.10
Tucson 3.72
Salt Lake City 4.93
Albuquerque 3.95
Denver 5.58
Oklahoma City 3.74
Dallas 5.50
Austin 6.29
Houston 6.02
Southeast

- Atlanta 4.32
- New Orleans 3.54
- Charlotte 4.82
- Raleigh/Durham 5.20
- Nashville 4.51
- Memphis 3.22
- Virginia Beach/Norfolk 4.32
Florida

Jacksonville 4.03
Orlando 4.58
Tampa 4.41
Miami 4.49
Property Sector Investment Rankings

Source: Emerging Trends in Real Estate 2010 survey.
Note: Based on US respondents only.
Best Bets: Investments

- Temper expectations
- Lock-in leverage (if you can)
- Provide debt and recap equity
- Focus on global gateways, 24-hour markets
- Favor infill over fringe
- Buy or hold REITs
- Buy land
- Exercise caution on distressed loan pools
Best Bets: Development

- Apartments—increasing activity in tightening infill markets
- The odd warehouse
- Select build-to-suit office projects
- Demand for premium product three to five years out
- Housing—need to absorb excess supply from overbuilding, foreclosures
- Export talent
- Build green
Less Space

• Housing
  - Inter-generational living together
  - Less reliance on cars

• Office
  - Downsizing space per capita
  - Outsourcing to domestic freelancers and overseas, more hoteling

• Retail
  - Smaller stores, best locations, more e-commerce

• Industrial
  - Fewer links in distribution chains
PwC Real Estate Investor Survey™

✓ Formerly known as “Korpacz Survey”
✓ In its 24th year – longest running quarterly Real Estate Market Forecast
✓ Covers 31 national, regional, and city-specific markets
✓ Encompasses office, retail, industrial and apartment properties
✓ Survey participants are asked to look forward NOT backwards
✓ Strong base of recurring survey participants of more than 125 (each quarter)
**PwC Real Estate Investor Survey**
National Highlights – Fourth Quarter 2010

- Investors signal signs that the US economy is likely to evade a double-dip recession.
- Supply-demand dynamics of the frail commercial real estate industry have mostly bottomed.
- Increased willingness to look for buying opportunities beyond core markets, trophy assets or vastly distressed properties.
- Both investors and lenders are gaining more confidence in the performance of the economy and the industry as a whole.
- Investors are looking to widen investment parameters and take on additional risk.
- Flight to quality focus remains.
**Overall cap rate trends**

Strong buyer interest, debt availability, and low interest rates continue to compress overall cap rates for core assets.
**Overall cap rate trends**
While averages have dipped for national markets (except flex/R&D) over the past year, they remain above 2007 levels.

Over next six (6) months market participants expect cap rates to hold steady.
**Overall cap rate trends - Apartments**

Rates have expanded and compressed the most in the Survey’s national apartment market.

![Graph showing cap rate trends with a shaded area indicating the recession period and a highlighted section for apartment recovery.](image)
**Overall cap rate trends - Apartments**

Cap rate trends have changed significantly in the Survey’s **national** apartment market over the past 20 years.
Overall cap rate trends - Office
Office markets -- quarterly declines have not been uniform during 2010.
Overall cap rate trends – Office
A 23-year look at the Manhattan Office Market

Investor confidence was not strong during the 90’s

50 BP from historical low

Recessions
Commercial Real Estate Loan Originations
Source: RCA
Investors continue to use conservative underwriting assumptions.

The “Year 1” market rent growth is negative for 10 of the Survey’s 31 markets this quarter.

A year ago, 20 markets reported negative Year 1 rent growth.

Markets with Negative Year 1 Rent Growth
1. National power center
2. National suburban office
3. Atlanta office
4. Boston office
5. Chicago
6. Denver office
7. Phoenix office,
8. San Diego office
9. SE Florida office
10. SE Region apartment
Market rent growth rate trends – nationally

Year 1 rent growth has declined dramatically in each sector since the peak of the cycle.
Market rent growth rates – office markets

For the 18 city-specific office markets, rent growth expectations have plummeted and are rising very slowly.

Recession

522 BP drop in 24 months
**Market rent growth rates – select office markets**

Growth rate assumptions have expanded and contracted the most in Manhattan and have been steady in the DC.
Upcoming Research from PwC’s Real Estate Practice
Upcoming Research

• Much of our Research at PwC is survey–based
• We recently took the opportunity to poll the audience of more than 200 real estate market participants
• The questions and results follow
**Polling question**

*In the coming year, in what area are you more willing (likely) to take on additional risk?*

1. Location
2. Property type
3. Tenancy
4. Leverage
5. Properties with deferred maturities
In 2011 – In what area are you willing to take on more risk?

In the coming year, in what area are you more willing (likely) to take on additional risk?

- Location: 31.5%
- Property type: 19.6%
- Tenancy: 18.5%
- Leverage: 12%
- Properties with deferred maintenance: 18.5%
Polling question

How do you intend to fix “out-of-balance” loans?

1. Principal pay-down or discounted payoff
2. Principal forgiveness from lender without borrower pay-down
3. Extend maturity and wait for market to improve
How do you intend to fix an out of balance loan?

- Principal paydown or DPB: 37.1%
- Principal forgiveness w/o paydown: 6.7%
- Extend maturity and wait for market to improve: 56.2%
Polling question

What property types are you looking to invest in 2011?

1. Office
2. Apartment
3. Industrial/Distribution
4. Hotel
5. Retail
6. Other
What property types are you looking to invest in 2011?

![Bar chart showing property types and their percentages: Office 32.3%, Apartment 44.8%, Industrial/Distribution 22.9%, Hotel 30.2%, Retail 21.9%, Other 13.5%]
Q & A
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