

## CMBS Research Special Topic: Commercial Property Insurance De-Mystified

### Important terms to understand in the wake of Hurricane Katrina

With preliminary damage estimates from Hurricane Katrina currently speculated to reach as much as \$100 billion (JPMorgan's insurance analyst estimates \$21 billion pretax losses), insurance coverage is of paramount concern to CMBS investors who own bonds with properties in the affected areas. While insurance terms such as all-risk, wind, and flood coverage are bandied about, the truth is there is a great deal of uncertainty with respect to exactly what they are, how they work and what they cover. In this special report, we shed some light on this important, and possibly not-so-well understood, area of the CMBS market.

At this time it is too early to predict 1) how long it will take to quantify the extent of the damage, 2) how quickly the insurance companies will pay claims, or 3) how CMBS bond holders may ultimately be affected. We suspect it will take at least another month or two before servicers can quantify the extent to which particular properties have been damaged and up to as much as a year before all the nuances among insurance contracts can be interpreted and agreed upon. Given this information vacuum, we suggest that investors proactively contact their deals' servicers for updated information.

To assist in this effort, we have compiled a list of the 80 properties totaling \$621 million included in JPMCC and CCMSC transactions that are located in areas the Federal Emergency Management Agency (FEMA) has designated as requiring public and individual assistance.

### Understanding nuances of commercial property insurance terms

#### All-risk insurance

Every loan included in a CMBS transaction is required to have all-risk insurance in a form that is satisfactory to the lender. **This type of insurance covers damage sustained as a result of unforeseeable events up to the full amount of the replacement cost of the property.** Events that may trigger an all-risk insurance claim include, but are not limited to: fire (including arson), water damage incurred as a result of a fire, hail, riots, and damage from looting.

#### Contents

Understanding nuances of commercial property insurance terms	1
Governmental assistance due to Hurricane Katrina exposure	4
Appendix I - Special Hazard Flood Areas	5
Approximate Locations of JPMCC/CCMSC Properties in Alabama Affected by Hurricane Katrina	6
Approximate Locations of JPMCC/CCMSC Properties in Louisiana Affected by Hurricane Katrina	7
Approximate Locations of JPMCC/CCMSC Properties in Mississippi Affected by Hurricane Katrina	8
Loans within JPMorgan/Chase transactions that qualify for public and private Federal assistance	9

#### CMBS Research

**Alan L. Todd, CFA<sup>AC</sup>**  
(1-212) 834-9388  
alan.l.todd@jpmorgan.com

**Yuriko Iwai**  
(1-212) 834-9390  
yuriko.iwai@jpmorgan.com

**David Zhou**  
(1-212) 270-0137  
david.x.zhou@jpmorgan.com

**Christopher T. Flanagan**  
(1-212) 270-6515  
christopher.t.flanagan@jpmorgan.com

### **Wind insurance**

Borrowers obtain wind insurance for protection from the wind-related effects of a hurricane. In most instances, it is added to the all-risk insurance coverage for an additional premium, although there is no industry standard guideline for determining how much this premium should cost.

Typically, the closer a property is to an area designated by FEMA as susceptible to hurricanes, the higher the insurance premium will be. Most lenders require full coverage for the peril of windstorm on the entire property although, in high risk areas, higher deductible are allowed as the insurance market will not offer a standard deductible in coastal areas. Because it is effectively included as part of the all-risk insurance coverage, any damage sustained as the result of wind would also be insured up to the full amount of the replacement cost of the property.

### **Carve-outs**

While every securitized commercial mortgage loan is required to obtain all-risk insurance coverage, other items such as earthquake and flood insurance, are typically covered as carve-outs and must be specifically requested and paid for.

### **Flood insurance**

Flood insurance covers water damage sustained by a property resulting from a flood. The Federal Insurance and Mitigation Administration (FIMA) within FEMA is responsible for administering the National Flood Insurance Program (NFIP), which is the program under which the majority of flood insurance is sold. While many borrowers are required to obtain primary flood insurance through the NFIP (explained below), due to its relatively low level of coverage, lenders often require additional, secondary, insurance.

### ***Identifying and mapping flood-prone communities***

The Flood Disaster Protection Act of 1973 required flood insurance for all grants and loans for acquisition or construction of buildings in designated Special Flood Hazard Areas (SFHA) in communities that participate in the NFIP. The SFHA is that land within the floodplain of a community subject to a 1 percent or greater chance of flooding in any given year, commonly referred to as the 100-year flood. There are nine zones that FEMA has designed as SFHAs. We list these zones in Appendix 1.

Per FEMA, “The Director of FEMA is required by statute to identify and map the Nation’s flood-prone areas and to establish flood-risk zones in such areas. The FEMA flood hazard maps are used for State and community floodplain management regulations, for calculating flood insurance premiums, and for determining whether property owners are required by law to obtain flood insurance as a condition of obtaining mortgage loans or other Federal or federally related financial assistance.”<sup>1</sup>

This standard has been used since the inception of the NFIP and is used for floodplain management purposes in all of the 19,200 participating communities that have been issued flood hazard maps. **Any borrower with a property located in a federally designated special flood hazard area is required to obtain flood coverage in an amount equal to the lesser of (1) the outstanding principal balance of the Note or (2) the maximum amount of such insurance available under the National Flood Insurance Program (NFIP).**

---

1. National Flood Insurance Program, Federal Emergency Management Agency, August 1, 2002.

### ***Coverage Amounts***

Full flood insurance coverage can be purchased through the NFIP up to the following amounts:

- Residential 1-4 family unit buildings and individual residential condominium units are written under the Dwelling Form and are eligible for up to \$250,000 in building coverage and up to \$100,000 in personal property coverage.
- ***Residential buildings containing more than 4 units are eligible for up to \$250,000 in building coverage and up to \$100,000 on personal property.***
- ***Non-residential buildings are eligible for up to \$500,000 in building coverage and up to \$500,000 on personal property written on the General Property Form.***
- Under the Residential Condominium Building Association Policy (RCBAP) Form a condominium association can purchase coverage on a building, which includes all the units within the building and the improvements within the units, up to \$250,000 times the number of units within the residential building. Personal property coverage on the form is limited to \$100,000 per building.

The NFIP is not the only source of flood insurance. Depending upon the location and type of property, as well as on a case by case basis, lenders may sometimes require secondary, additional flood insurance from a commercial carrier for an amount in excess of that required by the NFIP. In practice, however, it is often difficult to obtain a significant amount of secondary coverage since few commercial insurers will underwrite it due to its catastrophic nature.

### ***Filing a flood insurance claim***

As is true with other types of insurance, claims under the NFIP require the insured to file a proof of loss within 60 days of the loss, unless waived by the Administrator of FIMA. Claims can be adjusted using either an independent adjuster or an adjuster employed by the insurance writer. Under all NFIP policies, the policy holder pays a portion of the loss through the application of a deductible.

### **Business interruption insurance**

Business interruption insurance is another separate form of insurance obtained by a borrower that covers unexpected future cash flow interruptions. For most loans included in CMBS transactions, the borrower is required to obtain coverage equal to no less than 12-18 months of expected cash flow based on the average of the prior year's income.

A business interruption insurance claim may be brought by a property owner if he can show an enforceable lease and can document that a tenant is not obligated to pay rent under his lease as a result of a natural or man-made disaster.

### **Theft of property**

Theft of property by a third party is typically NOT covered through any of the policies mentioned above, but is covered by individual tenants' personal property insurance. To the extent a building has been left unguarded in the aftermath of Hurricane Katrina, each tenant will need to file a personal property insurance claim to recoup losses due to theft.

## **Governmental assistance due to Hurricane Katrina exposure**

FEMA classifies areas exposed to Hurricane Katrina as eligible for 1) public and private assistance, or 2) eligible only for public assistance. Areas that qualify for public and private assistance are those that have been declared a Major Disaster Area, and at this time include 31 counties in Louisiana, three counties in Alabama and fifteen counties in Mississippi. Under this program, individuals, families and businesses may be eligible for federal assistance if they live, own a business, or work in a county declared a Major Disaster Area, incur sufficient property damage or loss, and, depending on the type of assistance, do not have the insurance or other resources to meet their needs.<sup>2</sup>

Areas that qualify for public assistance are those that have suffered effects of a disaster (such as a hurricane), but have not been damaged badly enough to be declared a Major Disaster Area. In these counties The Public Assistance Program provides supplemental Federal disaster grant assistance for the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of certain Private Non-Profit organizations. The Federal share of assistance is not less than 75% of the eligible cost for emergency measures and permanent restoration. The State determines how the non-Federal share (up to 25%) is split with the applicants.<sup>3</sup>

---

2. Federal Emergency Management Agency  
3. Ibid.

## Appendix I – Special Hazard Flood Area Codes<sup>4</sup>

### **Zone A**

Lowest floor elevation is required and the Base Flood Elevations (BFEs) are not provided.

### **Zones A1-A30**

Lowest floor elevation is required and the BFEs are provided.

### **Zone AE**

Used in place of A1-A30 on some maps.

### **Zone AH**

Shallow water depths (ponding) and/or unpredictable flow paths between 1 and 3 feet occur. BFEs are provided.

### **Zone AO**

Shallow water paths (sheet flow) and/or unpredictable flow paths between 1 and 3 feet occur. BFEs are not provided. Base flood depths be provided.

### **Zone V**

An area that is inundated by tidal floods with velocity (coastal high hazard area). BFEs are not provided.

### **Zones V1-V30**

Identical to V Zone, but BFEs are provided.

### **Zone VE**

Used in place of V1-V30 on some maps.

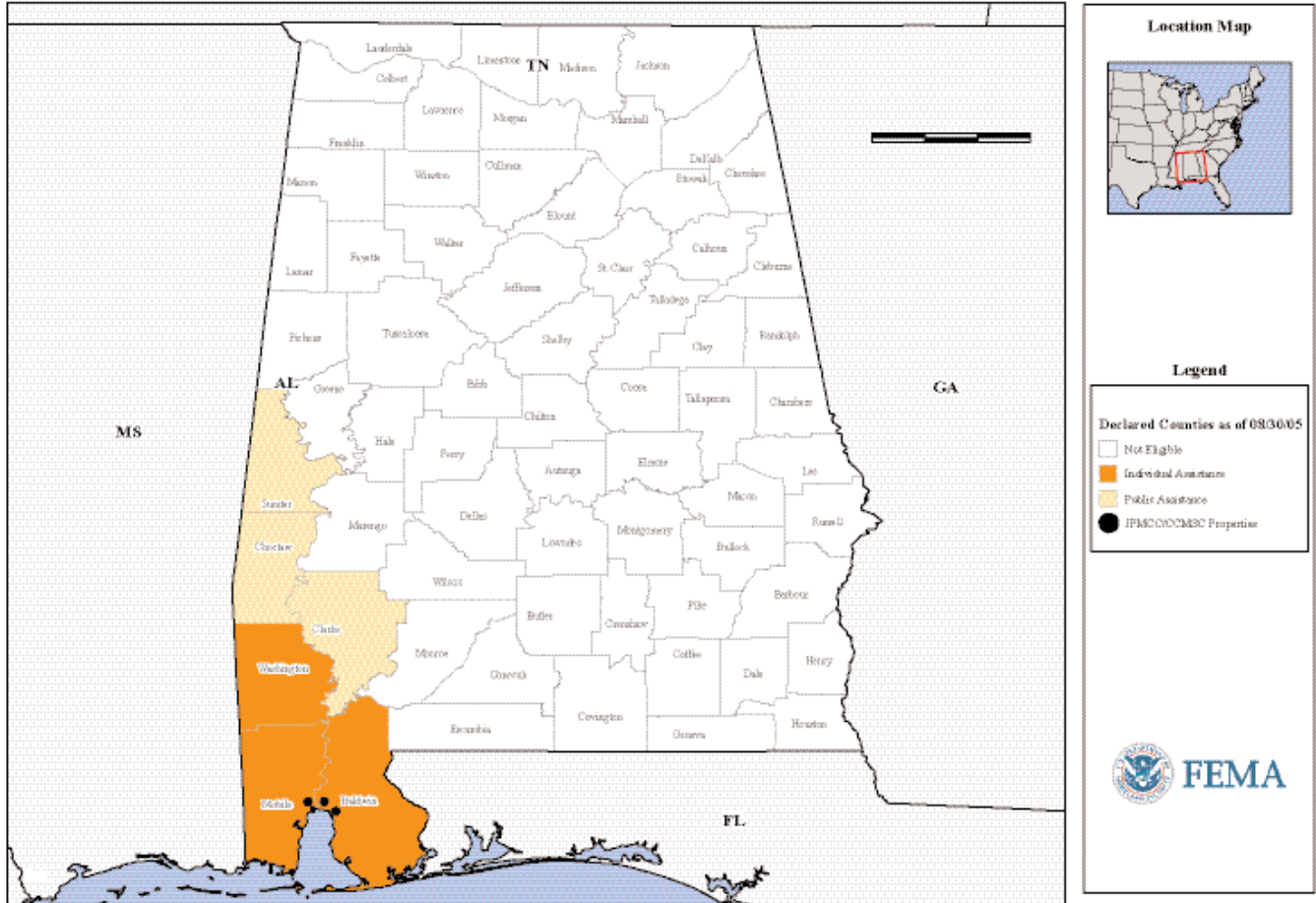
### **Zone VO**

An area having shallow water depths and/or unpredictable flow paths between 1 and 3 feet with velocity.

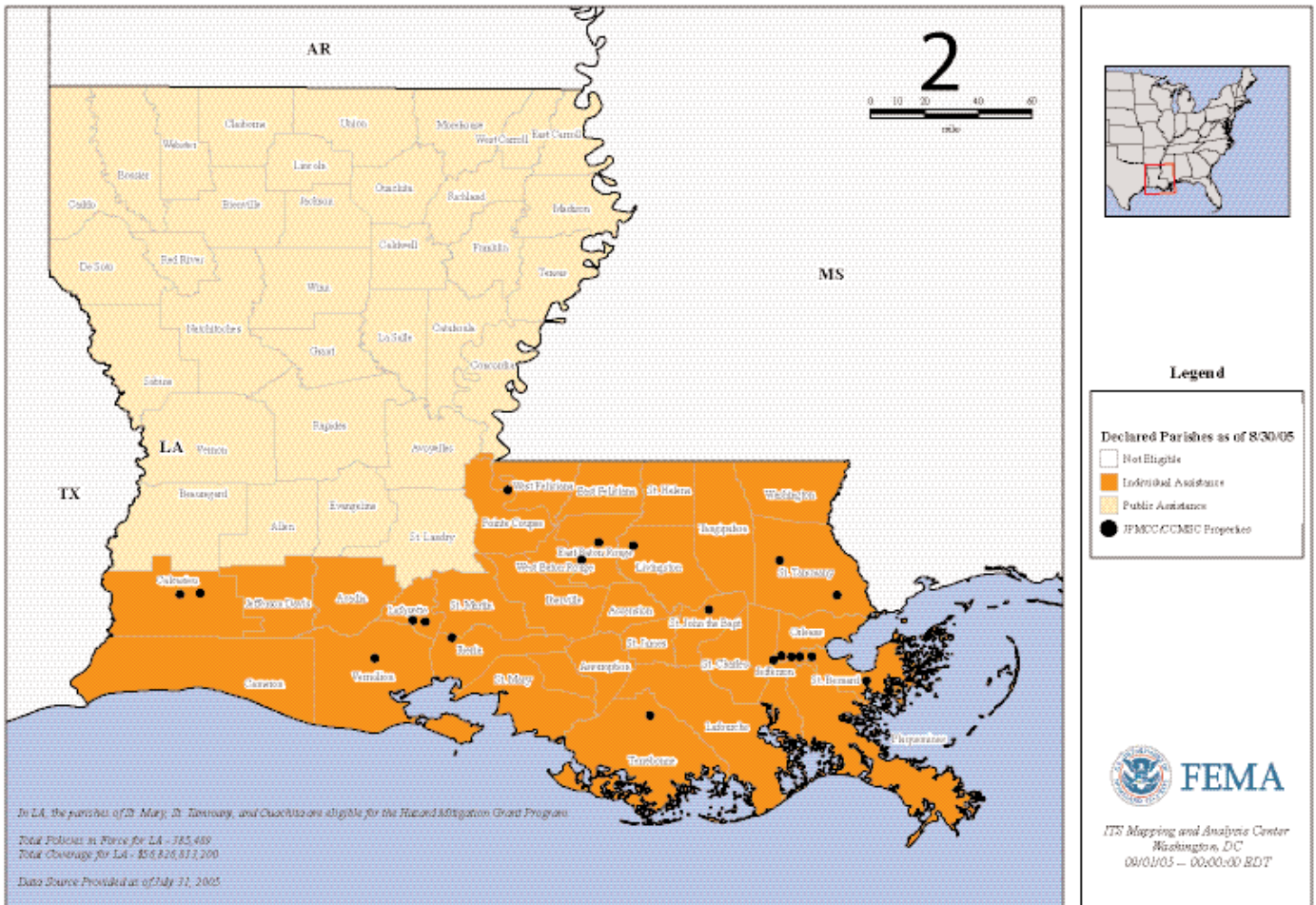
---

4. Flood Insurance Manual, National Flood Insurance Program, May 2005

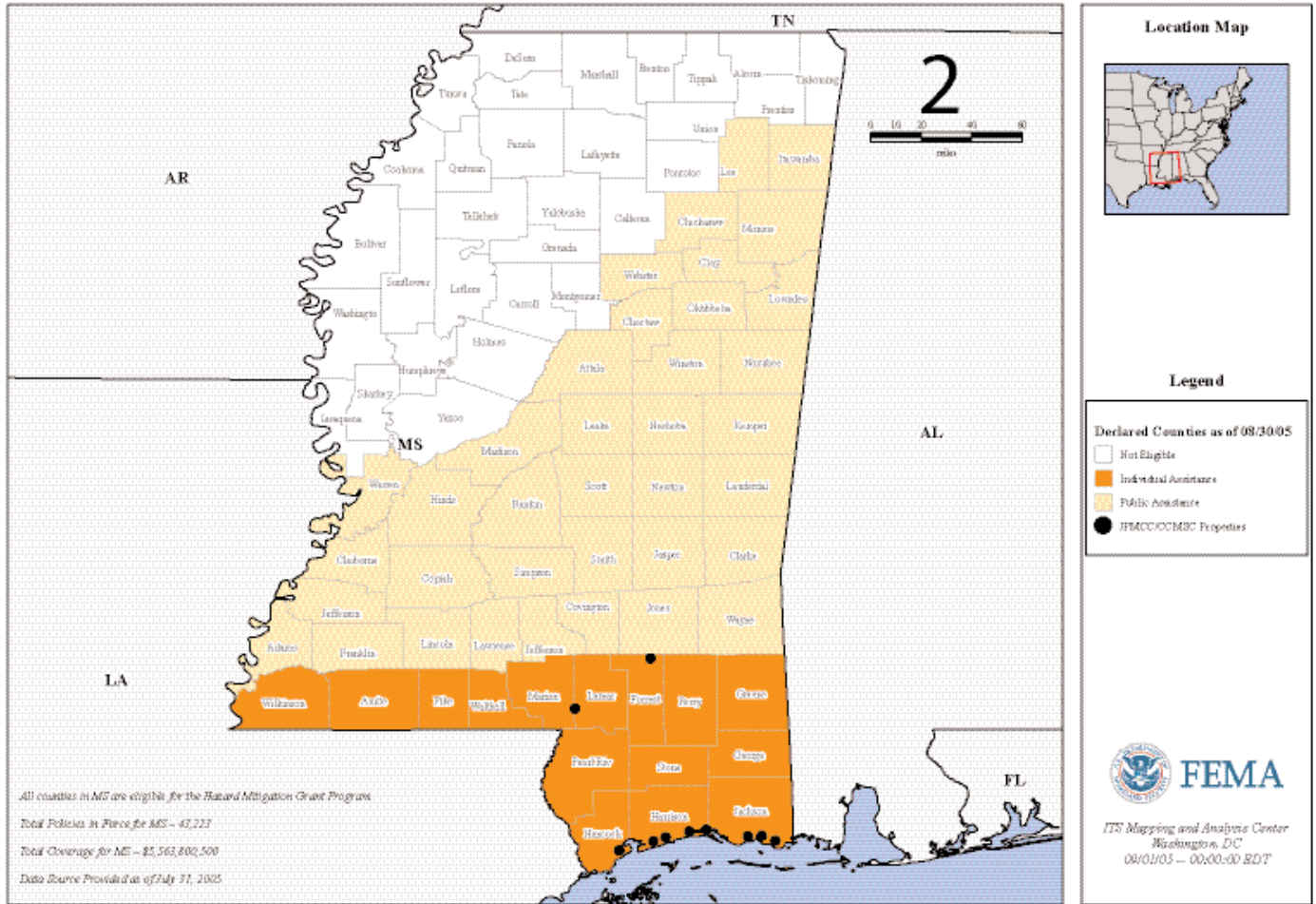
## Approximate Locations of JPMCC/CCMSC Properties in Alabama Affected by Hurricane Katrina



## Approximate Locations of JPMCC/CCMSC Properties in Louisiana Affected by Hurricane Katrina



## Approximate Locations of JPMCC/CCMSC Properties in Mississippi Affected by Hurricane Katrina



**Table 1: Loans within JPMorgan/Chase transactions that qualify for public and private Federal assistance**

Deal Name	Loan ID	Property Name	Current Loan Balance	Outstanding Deal Balance	Deal Exposure	MSA	Property Type	Assistance Level	Delinquency Status	DSCR*	Current LTV	Remaining Maturity Term
CCMSC 2000-FL1	6	Causeway Plaza	22,660,000		52.5%	New Orleans, LA	Office	Individual & Public Assistance	Current	2.29	70.8	2
<b>Total CCMSC 2000-FL1 exposure:</b>			<b>22,660,000</b>	<b>43,185,000</b>	<b>52.5%</b>							
JPMCC 2001-A	6	Southside Gardens	5,634,713		6.5%	Baton Rouge, LA	Senior Housing	Individual & Public Assistance	Current	1.29	69.6	47
<b>Total JPMCC 2001-A exposure:</b>			<b>5,634,713</b>	<b>87,109,663</b>	<b>6.5%</b>							
CCMSC 2000-3	53	Le Meridien	45,282,392		6.4%	New Orleans, LA	Hotel	Individual & Public Assistance	Current	1.44	54.9	60
<b>Total CCMSC 2000-3 exposure:</b>			<b>45,282,392</b>	<b>702,354,836</b>	<b>6.4%</b>							
JPMCC 2005-CIBC11	7	Poydras Plaza	59,586,300		3.3%	New Orleans, LA	Office	Individual & Public Assistance	Current	1.36	76.9	113
15		Lowes Metairie	23,400,000		1.3%	New Orleans, LA	Retail	Individual & Public Assistance	Current	1.23	79.9	115
59		College and Perkins	6,599,872		0.4%	Baton Rouge, LA	Retail	Individual & Public Assistance	Current	1.31	78.6	113
94		Walker Plaza	4,100,000		0.2%	Baton Rouge, LA	Retail	Individual & Public Assistance	Current	1.43	75.0	76
103		Riverwood Shopping Center	3,860,534		0.2%	New Orleans, LA	Retail	Individual & Public Assistance	Current	1.40	72.5	115
<b>Total JPMCC 2005-CIBC11 exposure:</b>			<b>97,546,706</b>	<b>1,795,931,650</b>	<b>5.4%</b>							
JPMCC 2005-CIBC12	9	Stirling Covington Center	29,906,023		1.3%	New Orleans, LA	Retail	Individual & Public Assistance	Current	1.50	66.5	118
55		Pinebrook Shopping Center	14,000,000		0.6%	Mobile, AL	Retail	Individual & Public Assistance	Current	1.38	80.0	119
60		The Plantation Apartment Homes	13,400,000		0.6%	Biloxi-Gulfport-Pascagoula, MS	Multifamily	Individual & Public Assistance	Current	1.50	79.8	59
75		Lakewind East Apartments	10,600,000		0.5%	New Orleans, LA	Multifamily	Individual & Public Assistance	Current	1.24	79.8	119
145		Clearmont Apartments	3,871,098		0.2%	New Orleans, LA	Multifamily	Individual & Public Assistance	Current	1.37	74.5	115
150		Coursey Place Center	3,489,952		0.2%	Baton Rouge, LA	Retail	Individual & Public Assistance	Current	1.25	59.1	118
<b>Total JPMCC 2005-CIBC12 exposure:</b>			<b>75,267,072</b>	<b>2,216,324,880</b>	<b>3.4%</b>							
JPMCC 2005-LDP2	3	Shops at Canal Place	90,000,000		3.0%	New Orleans, LA	Retail	Individual & Public Assistance	Current	1.50	78.3	118
191		Storage Max - Mobile, AL	3,467,736		0.1%	Mobile, AL	Self Storage	Individual & Public Assistance	Current	1.54	64.3	118
223		Magnolia Self Storage	2,594,565		0.1%	Mobile, AL	Self Storage	Individual & Public Assistance	Current	1.56	66.6	118
227		Woodland Square	2,560,000		0.1%	Mobile, AL	Multifamily	Individual & Public Assistance	Current	1.71	80.0	56
292		All American Self Storage	1,022,857		0.0%	Mobile, AL	Self Storage	Individual & Public Assistance	Current	1.57	60.2	118
<b>Total JPMCC 2005-LDP2 exposure:</b>			<b>99,645,159</b>	<b>2,976,958,405</b>	<b>3.3%</b>							
JPMCC 2004-CIBC10	17	Sun Plus Distribution Center	22,258,101		1.1%	Baton Rouge, LA	Industrial	Individual & Public Assistance	Current	1.85	69.6	109
79		Coursey Commons	7,620,239		0.4%	Baton Rouge, LA	Retail	Individual & Public Assistance	Current	1.65	69.9	110
83		IV United Plaza	6,974,830		0.4%	Baton Rouge, LA	Office	Individual & Public Assistance	Current	1.31	74.2	110
158		Oak Woods Apartments	2,900,506		0.1%	Baton Rouge, LA	Multifamily	Individual & Public Assistance	Current	1.77	75.9	109
195		Walgreens - South Carrollton	941,962		0.0%	New Orleans, LA	Retail	Individual & Public Assistance	Current	1.18	35.1	76
197		Walgreens - Coursey	860,521		0.0%	Baton Rouge, LA	Retail	Individual & Public Assistance	Current	1.36	36.1	101
198		Walgreens - Front Street	785,679		0.0%	New Orleans, LA	Retail	Individual & Public Assistance	Current	1.18	35.5	85
199		Walgreens - Sulphur	768,692		0.0%	Lake Charles, LA	Retail	Individual & Public Assistance	Current	1.28	35.9	94
201		Walgreens - Ryan Street	662,125		0.0%	Lake Charles, LA	Retail	Individual & Public Assistance	Current	1.21	35.5	84
<b>Total JPMCC 2004-CIBC10 exposure:</b>			<b>43,772,653</b>	<b>1,947,578,408</b>	<b>2.2%</b>							
JPMCC 2002-CIBC5	10	Elmwood Tower	18,031,463		1.8%	New Orleans, LA	Office	Individual & Public Assistance	Current	1.52	72.1	84
<b>Total JPMCC 2002-CIBC5 exposure:</b>			<b>18,031,463</b>	<b>985,072,515</b>	<b>1.8%</b>							



**Table 1: Loans within JPMorgan/Chase transactions that qualify for public and private Federal assistance**

Deal Name	Loan ID	Property Name	Current Loan Balance	Outstanding Deal Balance	Deal Exposure	MSA	Property Type	Assistance Level	Delinquency Status	DSCR*	Current LTV	Remaining Maturity Term
CCMSC 1997-C1	41	Crossgates Village SC	2,138,732	283,150,630	0.8%	Jackson, MS	Retail	Individual & Public Assistance	Current	1.86	65.6	17
<b>Total CCMSC 1997-C1 exposure:</b>			<b>2,138,732</b>	<b>283,150,630</b>	<b>0.8%</b>					<b>1.35</b>	<b>78.6</b>	<b>113</b>
JPMCC 2005-LDP1	27	Market Center	20,239,026	2,871,152,336	0.8%	Baton Rouge, LA	Retail	Individual & Public Assistance	Current	2.35	69.1	95
<b>Total JPMCC 2005-LDP1 exposure:</b>			<b>20,239,026</b>	<b>2,871,152,336</b>	<b>0.8%</b>					<b>3.20</b>	<b>44.8</b>	<b>53</b>
JPMCC 2003-CIBC6	54	Gentilly Woods Shopping Center	5,387,129	7,445,724	0.7%	New Orleans, LA	Retail	Individual & Public Assistance	Current	1.13	75.9	127
	109	Baton Rouge Center	2,058,595	1,935,888	0.2%	Baton Rouge, LA	Retail	Individual & Public Assistance	Current	1.12	74.4	127
<b>Total JPMCC 2003-CIBC6 exposure:</b>			<b>7,445,724</b>	<b>1,034,153,987</b>	<b>0.7%</b>					<b>1.24</b>	<b>69.2</b>	<b>64</b>
JPMCC 2001-CIBC2	110	Willow Park Apartments II	1,897,458	720,784	0.2%	Lafayette, LA	Multifamily	Individual & Public Assistance	Current	1.59	67.4	66
	111	Willow Park Apartments I	864,758	708,737	0.1%	Lafayette, LA	Multifamily	Individual & Public Assistance	Current	1.26	73.1	66
	134	Dolphin South Apartments	864,758	906,193,379	0.7%	Bloix-Gulfport-Pascagoula, MS	Multifamily	Individual & Public Assistance	Current	1.66	59.2	34
	135	Azalea Mobile Home Park	720,784	7,344,443	0.7%	Baton Rouge, LA	Manufactured Housing	Individual & Public Assistance	Current	1.33	77.2	89
	137	The Ivy	708,737	1,172,479	0.1%	Baton Rouge, LA	Multifamily	Individual & Public Assistance	Current	1.80	51.0	138
<b>Total JPMCC 2001-CIBC2 exposure:</b>			<b>6,127,626</b>	<b>906,193,379</b>	<b>0.7%</b>					<b>1.46</b>	<b>78.2</b>	<b>97</b>
CCMSC 1998-2	40	East Lake Plaza Shopping Center	7,344,443	1,065,478,367	0.7%	New Orleans, LA	Retail	Individual & Public Assistance	Current	1.50	57.2	96
<b>Total CCMSC 1998-2 exposure:</b>			<b>7,344,443</b>	<b>1,065,478,367</b>	<b>0.7%</b>					<b>1.41</b>	<b>77.0</b>	<b>72</b>
JPMCC 2003-ML1	60	Pelican Bay Apartments	5,015,647	6,188,127	0.6%	New Orleans, LA	Multifamily	Individual & Public Assistance	Current	1.66	76.5	105
	119	ITS/Caleb Brett	1,172,479	899,239,365	0.7%	New Orleans, LA	Industrial	Individual & Public Assistance	Current	1.35	75.5	62
<b>Total JPMCC 2003-ML1 exposure:</b>			<b>6,188,127</b>	<b>899,239,365</b>	<b>0.7%</b>					<b>1.45</b>	<b>69.6</b>	<b>99</b>
JPMCC 2003-LN1	72	Royal Gulf Apartments	5,475,038	7,152,651	0.4%	Bloix-Gulfport-Pascagoula, MS	Multifamily	Individual & Public Assistance	Current	1.83	56.6	73
	173	Cedar Lake MHP	1,677,613	1,233,301,563	0.1%	Bloix-Gulfport-Pascagoula, MS	Manufactured Housing	Individual & Public Assistance	Current	1.20	65.7	74
<b>Total JPMCC 2003-LN1 exposure:</b>			<b>7,152,651</b>	<b>1,233,301,563</b>	<b>0.6%</b>					<b>1.92</b>	<b>46.7</b>	<b>130</b>
JPMCC 2004-LN2	70	Central Plaza	5,100,000	1,233,587,216	0.6%	Baton Rouge, LA	Retail	Individual & Public Assistance	Current	1.08	74.1	80
	158	Turtle Bend Shopping Center	1,835,848	967,524,985	0.4%	Hattiesburg, MS	Retail	Individual & Public Assistance	Current	1.08	74.1	80
<b>Total JPMCC 2004-LN2 exposure:</b>			<b>6,935,848</b>	<b>1,233,587,216</b>	<b>0.6%</b>					<b>0.83</b>	<b>58.6</b>	<b>40</b>
JPMCC 2004-C1	72	Hillcrest Apartment	3,395,517	4,509,131	0.4%	Mobile, AL	Multifamily	Individual & Public Assistance	Current	1.45	69.6	99
	114	Southview Shopping Center	1,113,613	967,524,985	0.5%	Baton Rouge, LA	Retail	Individual & Public Assistance	Current	1.35	75.5	62
<b>Total JPMCC 2004-C1 exposure:</b>			<b>4,509,131</b>	<b>967,524,985</b>	<b>0.5%</b>					<b>1.83</b>	<b>56.6</b>	<b>73</b>
JPMCC 2001-C1	119	Winn Dixie	2,478,952	2,778,292	0.2%	Mobile, AL	Retail	Individual & Public Assistance	Current	1.20	65.7	74
	151	Congress Gardens	1,176,419	752,103,093	0.4%	Lafayette, LA	Multifamily	Individual & Public Assistance	Current	1.92	46.7	130
	167	Nelson Plaza	654,085	1,023,218,840	0.4%	Baton Rouge, LA	Retail	Individual & Public Assistance	Current	1.08	74.1	80
<b>Total JPMCC 2001-C1 exposure:</b>			<b>4,309,457</b>	<b>1,023,218,840</b>	<b>0.4%</b>					<b>0.83</b>	<b>58.6</b>	<b>40</b>
JPMCC 2002-CIBC4	89	Greywood Glen Apartments	2,778,292	752,103,093	0.4%	Bloix-Gulfport-Pascagoula, MS	Multifamily	Individual & Public Assistance	Current	1.08	74.1	80
<b>Total JPMCC 2002-CIBC4 exposure:</b>			<b>2,778,292</b>	<b>752,103,093</b>	<b>0.4%</b>					<b>0.83</b>	<b>58.6</b>	<b>40</b>
JPMCC 1999-C7	761	Microtel Inn - Sulphur, LA	2,518,441	614,154,924	0.4%	Lake Charles, LA	Hotel	Individual & Public Assistance	Current	0.89	74.4	80
<b>Total JPMCC 1999-C7 exposure:</b>			<b>2,518,441</b>	<b>614,154,924</b>	<b>0.4%</b>					<b>0.89</b>	<b>74.4</b>	<b>80</b>
JPMCC 2002-C2	8800	Westgate Apartments	2,379,774	1,002,675,283	0.2%	Bloix-Gulfport-Pascagoula, MS	Multifamily	Individual & Public Assistance	Current	0.89	74.4	80
<b>Total JPMCC 2002-C2 exposure:</b>			<b>2,379,774</b>	<b>1,002,675,283</b>	<b>0.2%</b>							

Source: JPMorgan, Intex, Trepp.

## Research Distribution

To amend research distribution please contact Kathryn Burfitt, Research Administration, (212) 270-0740, [kathryn.burfitt@jpmorgan.com](mailto:kathryn.burfitt@jpmorgan.com)



## Analyst Certification

The analyst(s) denoted by an "AC" certifies that: (1) all of the views expressed in this research accurately reflect his or her personal views about any and all of the subject securities or issuers; and (2) no part of any of the analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the analyst(s) in this research.

### J.P. Morgan Securities Inc.

270 Park Avenue  
New York, N.Y. 10017

Tel. (212) 270-0740

### J.P. Morgan Europe Ltd.

125 London Wall  
London EC2Y 5AJ  
Tel. (44 20) 7777-1821

### J.P. Morgan Securities Ltd.

60 Victoria Embankment  
London EC4Y 0JP  
Tel. (44 20) 7600-2300

### J.P. Morgan Securities (Asia Pacific) Ltd.

Chater House, 26/F  
8 Connaught Road  
Central, Hong Kong  
Tel. (852) 2800-7000

### J.P. Morgan Securities Asia Pte. Ltd.

Akasaka Park Building  
2-20 Akasaka 5-chome  
Minato-ku, Tokyo 107-6151,  
Japan  
Tel. (813) 5573-1185

**Conflict of Interest:** This research contains the views, opinions and recommendations of JPMorgan credit research analysts. Research analysts routinely consult with JPMorgan trading desk personnel in formulating views, opinions and recommendations in preparing research. Trading desks may trade, or have traded, as principal on the basis of the research analyst(s) views and report(s). Therefore, this research may not be independent from the proprietary interests of JPMorgan trading desks which may conflict with your interests. In addition, research analysts receive compensation based, in part, on the quality and accuracy of their analysis, client feedback, trading desk and firm revenues and competitive factors. As a general matter, JPMorgan and/or its affiliates normally make a market and trade as principal in fixed income securities discussed in research reports.

**Analysts' Compensation:** The research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors and overall firm revenues. The firm's overall revenues include revenues from its investment banking and fixed income business units.

**Principal Trading:** JPMorgan and/or its affiliates normally make a market and trade as principal in fixed income securities discussed in this report.

**Ratings System:** JPMorgan uses the following sector/issuer portfolio weightings: **Overweight** (over the next three months, the recommended risk position is expected to outperform the relevant index, sector, or benchmark), **Neutral** (over the next three months, the recommended risk position is expected to perform in line with the relevant index, sector, or benchmark), and **Underweight** (over the next three months, the recommended risk position is expected to underperform the relevant index, sector, or benchmark).

JPMorgan uses the following fundamental credit recommendations: **Improving** (the issuer's credit profile/credit rating likely improves over the next six to twelve months), **Stable** (the issuer's long-term credit profile/credit rating likely remains the same over the next six to twelve months), **Deteriorating** (the issuer's long-term credit profile/credit rating likely falls over the next six to twelve months), **Defaulting** (there is some likelihood that the issuer defaults over the next six to twelve months).

**Legal Entities:** JPMorgan is the marketing name for JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide. J.P. Morgan Securities Inc. is a member of NYSE and SIPC. JPMorgan Chase Bank, N.A. is a member of FDIC and is authorized and regulated in the UK by the Financial Services Authority. J.P. Morgan Futures Inc., is a member of the NFA. J.P. Morgan Securities Ltd. (JPMSL) is a member of the London Stock Exchange and is authorized and regulated by the Financial Services Authority. J.P. Morgan Equities Limited is a member of the Johannesburg Securities Exchange and is regulated by the FSB. J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority. JPMorgan Chase Bank, N.A., Singapore branch is regulated by the Monetary Authority of Singapore ("MAS"). J.P. Morgan Securities Asia Private Limited is regulated by the MAS and the Financial Services Agency in Japan. J.P. Morgan Australia Limited (ABN 52 002 888 011/AFS Licence No: 238188) (JPMAL) is regulated by ASIC.

**General:** Information has been obtained from sources believed to be reliable but JPMorgan does not warrant its completeness or accuracy except with respect to any disclosures relative to JPMSI and/or its affiliates and the analyst's involvement with the issuer. Opinions and estimates are general in nature and constitute our judgment as at the date of this material and are subject to change without notice. Past performance is not indicative of future results. The investments and strategies discussed here may not be suitable for all investors or any particular class of investors; if you have any doubts you should consult your investment advisor. The investments discussed may fluctuate in price or value. Changes in rates of exchange may have an adverse effect on the value of investments. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. JPMorgan and/or its affiliates and employees may act as placement agent, advisor or lender with respect to securities or issuers referenced in this report. Clients should contact analysts at and execute transactions through a JPMorgan entity in their home jurisdiction unless governing law permits otherwise. This report should not be distributed to others or replicated in any form without prior consent of JPMorgan.

**U.K. and European Economic Area (EEA):** Investment research issued by JPMSL has been prepared in accordance with JPMSL's Policies for Managing Conflicts of Interest in Connection with Investment Research. This report has been issued in the U.K. only to persons of a kind described in Article 19 (5), 38, 47 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 (all such persons being referred to as "relevant persons"). This document must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is only available to relevant persons and will be engaged in only with relevant persons. In other EEA countries, the report has been issued to persons regarded as professional investors (or equivalent) in their home jurisdiction.

**Australia:** This material is issued and distributed by JPMAL in Australia to "wholesale clients" only. JPMAL does not issue or distribute this material to "retail clients." The recipient of this material must not distribute it to any third party or outside Australia without the prior written consent of JPMAL. For the purposes of this paragraph the terms "wholesale client" and "retail client" have the meanings given to them in section 761G of the Corporations Act 2001. JPMAL may hold an interest in the financial product referred to in this report. JPMCB, N.A. may make a market or hold an interest in the financial product referred to in this report.

**Korea:** This report may have been edited or contributed to from time to time by affiliates of J.P. Morgan Securities (Far East) Ltd, Seoul branch.

Revised April 2005

Copyright 2005 JPMorgan Chase & Co. All rights reserved. Additional information available upon request.

\*JPMSI or an affiliate has managed or co-managed an offering of securities within the past twelve months.

^A senior employee, executive officer, or director of JPMSI and/or its affiliates is a director of the company.