Where Are We On Sub Prime Mortgage and Foreclosure Issues?

Kansas City Association for Financial Professionals
Harrah’s North Kansas City
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Regional, Public, and Community Affairs Division
Federal Reserve Bank of Kansas City
Foreclosure Rates, Missouri, Kansas and U.S.

Source: Mortgage Bankers Association
Foreclosure Initiation Rates, Missouri and U.S.

Source: Mortgage Bankers Association

Legend

Judicial / Nonjudicial Foreclosure

- Equally
- Judicial
- Nonjudicial

NJ indicates that nonjudicial foreclosure is an option in the state, but judicial foreclosures generally are pursued.

Data Source: RealtyTrac
Counts and Effects on Process Days

• Judicial Foreclosure = 24 (Avg. 186.3 days)
• Nonjudicial Foreclosure = 25 (Avg. 87.1 days)
• Range is 27 (TX, NJ) to 445 (NY, J)
• Missouri is 60 (NJ)
• Kansas is 130 (J)
Where Missouri and Kansas Stand:
State Foreclosure Rates, 3rd and 4th Quarters 2007

<table>
<thead>
<tr>
<th>State</th>
<th>Rate 3rd Qtr</th>
<th>Rate 4th Qtr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td>3.72</td>
<td>3.88</td>
</tr>
<tr>
<td>Indiana</td>
<td>3.28</td>
<td>3.53</td>
</tr>
<tr>
<td>Michigan</td>
<td>3.07</td>
<td>3.38</td>
</tr>
<tr>
<td>Florida</td>
<td>2.19</td>
<td>3.22</td>
</tr>
<tr>
<td>United States Avg.</td>
<td>1.69</td>
<td>2.04</td>
</tr>
<tr>
<td>Kansas</td>
<td>1.28</td>
<td>1.52</td>
</tr>
<tr>
<td>Missouri</td>
<td>1.37</td>
<td>1.43</td>
</tr>
</tbody>
</table>

*Source: Mortgage Bankers Association*
Missouri Statewide Foreclosure Rate, 2007

Legend
- No Foreclosures
- Less than .5% of All Mortgages
- .5% to 1% of All Mortgages
- 1% to 2% of All Mortgages
- 2% to 5% of All Mortgages
- More than 5% of All Mortgages
Kansas Foreclosure Rates by Census Tract

Legend
- No Foreclosures Identified
- Less than .5% of Mortgages
- .5% to 1% of Mortgages
- 1% to 2% of Mortgages
- 2% to 5% of Mortgages
- More than 5% of Mortgages
Kansas City, Missouri Median Household Income and Foreclosure Rates

Median Income by Census Tract

Foreclosure Rate by Census Tract

Source: 2000 U.S. Census

Normalized per number of mortgages outstanding by Census Tract
Source: 2000 U.S. Census and RealtyTrac Survey of New Foreclosures
Kansas City Median Household Income and Foreclosure Rates

Median Income by Census Tract

Foreclosure Rate by Census Tract

Legend

Less than $20,000
$20,000-$40,000
$40,000-$60,000
$60,000-$90,000
More than $90,000

Source: 2000 U.S. Census Normalized per number of mortgages outstanding by Census Tract

Lawrence
Kansas City

Legend

No Foreclosures Identified
Less than .5% of Mortgages
.5% to 1% of Mortgages
1% to 2% of Mortgages
2% to 5% of Mortgages
More than 5% of Mortgages

Source: 2000 U.S. Census and RealtyTrac Survey of New Foreclosures
The Perfect Foreclosure Storm

• “Nonprime” Mortgage Share
  – Subprime Mortgages
  – Alt-A Mortgages

• Payment Shock for Non-Traditional Mortgages
  – Adjustable-Rate Mortgages (ARMs)
  – Interest-Only Mortgages
  – Payment Option ARMs

• Adverse Equity Position
  – Declining Home Price Appreciation (or Depreciation)
  – High LTV originations
  – Cash-Out Refinancing
“Nonprime” Mortgage Originations

Source: Inside Mortgage Finance
### Foreclosure Rates by Type of Mortgage
Fourth Quarter, 2007

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>In Foreclosure</th>
<th>Foreclosures Started</th>
<th>Past Due (30+ Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime</td>
<td>0.96</td>
<td>0.43</td>
<td>3.55</td>
</tr>
<tr>
<td>Subprime</td>
<td>8.65</td>
<td>3.71</td>
<td>18.82</td>
</tr>
</tbody>
</table>

*Source: Mortgage Bankers Association*
Missouri Subprime Penetration Rate by Zip Code

Source: Loan Performance, U.S. Census
Kansas Subprime Penetration Rate by Zip Code

Legend
- No Subprime Mortgages
- Less than 2% of All Mortgages
- 2% to 5% of All Mortgages
- 5% to 10% of All Mortgages
- 10% to 20% of All Mortgages
- More than 20% of Mortgages

Source: US Census 2006 American Community Survey, Loan Performance, Geolytics
The Perfect Foreclosure Storm

• “Nonprime” Mortgage Share
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  – Cash-Out Refinancing
Innovations in the Mortgage Market

The Evolution of Lending

1913
- 50% LTV
- Limited geography
- Limited term
- Balloons

1935
- 80% LTV

1940
- 90% LTV

1970
- 100% LTV

1989
- Automated Underwriting
- FICO Scores

1995
- Over 100% LTV
- Unlimited geography
- Up to 40 yr term
- Negative amortization
- Piggyback lending
- Interest only
- No documentation

Today

Source: Christopher Henderson, Federal Reserve Bank of Philadelphia
Home Price Appreciation Outpaces Personal Income Growth

Sources: Office of Housing Enterprise Oversight, U.S. Bureau of Economic Analysis
Interest Rate Indexes, 2000 – Present

- 1YR CM Treasury
- Cost of Funds Index
- LIBOR
- 30-Yr Conventional
ARM Share of Mortgage Originations

Source: Inside Mortgage Finance
Alternative Mortgage Originations

Source: Inside Mortgage Finance
# Payment Structure, by Mortgage Type

## $200,000, June, 2004

<table>
<thead>
<tr>
<th>Loan Product</th>
<th>Initial Payment</th>
<th>Reset Payment</th>
<th>Reset Date</th>
<th>Payment Increase</th>
<th>Increase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-Year FRM</td>
<td>$1,237</td>
<td>$1,237</td>
<td>None</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>3/1 ARM</td>
<td>$1,039</td>
<td>$1,420</td>
<td>June, 2007</td>
<td>$381</td>
<td>37%</td>
</tr>
<tr>
<td>3/1 I-O ARM</td>
<td>$786</td>
<td>$1,462</td>
<td>June, 2007</td>
<td>$676</td>
<td>86%</td>
</tr>
<tr>
<td>Option ARM</td>
<td>$643</td>
<td>$1,555</td>
<td>August, 2007</td>
<td>$912</td>
<td>142%</td>
</tr>
</tbody>
</table>

Assumptions: Option ARM has a 7.5% annual increase limit and a 110% negative amortization cap; Option ARM interest accrual is based off 1 year ARM rate as reported by Fannie Mae; Option ARM Minimum Payment is equivalent to a 1% interest rate; FRM is from Fannie Mae 30 Year FRM Index; ARM is set from LIBOR plus a 2.25% margin; 3/1 Interest Only ARM amortizes in 30 Years.
Many 2/28s are Prepaid

Cumulative Prepayment Rates by Vintage for 2/28s

Source: Federal Reserve Board staff calculations from Loan Performance data.
Banks Reporting Tighter Lending Standards for Residential Mortgages

Net Percentage

Source: Federal Reserve; Senior Loan Officer Opinion Survey

Latest Release: 02/04/2008
Subprime 2/28 Default Rates

Cumulative Default Rates by Vintage for 2/28s

Time in months

Source: Federal Reserve Board staff calculations from Loan Performance data.
Average Interest Rates on Subprime Loans

<table>
<thead>
<tr>
<th>Category</th>
<th>US</th>
<th>KC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Interest Rate (overall)</td>
<td>8.7</td>
<td>9.4</td>
</tr>
<tr>
<td>Average Rate (Fixed)</td>
<td>7.9</td>
<td>8.5</td>
</tr>
<tr>
<td>Average Initial Rate (ARM)</td>
<td>8.1</td>
<td>8.5</td>
</tr>
<tr>
<td>Average Current Rate (ARM)</td>
<td>9.1</td>
<td>9.8</td>
</tr>
<tr>
<td>Average Fully Indexed (LIBOR=2.6)</td>
<td>8.7</td>
<td>8.9</td>
</tr>
<tr>
<td>Average Fully Indexed (LIBOR=5.4)</td>
<td>11.5</td>
<td>11.7</td>
</tr>
</tbody>
</table>

%
Interest Rate Indexes, 2000 – Present

- 1YR CM Treasury
- Cost of Funds Index
- LIBOR
- 30-Yr Conventional

Month:
Average Interest Rates on Subprime Loans

<table>
<thead>
<tr>
<th>Rate Description</th>
<th>Average Rate (Fixed)</th>
<th>Average Initial Rate (ARM)</th>
<th>Average Current Rate (ARM)</th>
<th>Average Fully Indexed (LIBOR=2.6)</th>
<th>Average Fully Indexed (LIBOR=5.4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>8.7</td>
<td>8.1</td>
<td>9.1</td>
<td>8.7</td>
<td>11.5</td>
</tr>
<tr>
<td>Fixed</td>
<td>9.4</td>
<td>8.5</td>
<td>9.8</td>
<td>8.9</td>
<td>11.7</td>
</tr>
<tr>
<td>ARM (LIBOR=2.6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARM (LIBOR=5.4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
When Are the Resets Going to Happen?

Source: Loan Performance, UBS

Provided by Larry Cordell, Federal Reserve Bank of Philadelphia
The Perfect Foreclosure Storm

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  – Alt-A Mortgages

• Payment Shock for Non-Traditional Mortgages
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• Adverse Equity Position
  – Declining Home Price Appreciation (or Depreciation)
  – High LTV originations
  – Cash-Out Refinancing
Loan-to-Value Ratios at Purchase Among Foreclosees (Massachusetts)

<table>
<thead>
<tr>
<th></th>
<th>≤ 80%</th>
<th>80%-95%</th>
<th>95%-100%</th>
<th>≥ 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>8.6</td>
<td>41.1</td>
<td>15.7</td>
<td>34.5</td>
</tr>
<tr>
<td>2007</td>
<td>8.0</td>
<td>38.4</td>
<td>13.4</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Bank of Boston
Cash-Out Refinances

Source: Freddie Mac
## Annual Change in Home Prices

<table>
<thead>
<tr>
<th></th>
<th>2004-05</th>
<th>2005-06</th>
<th>2006-07</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States (NAR)</td>
<td>12.2</td>
<td>1.3</td>
<td>(1.8)</td>
</tr>
<tr>
<td>United States (S&amp;P C-S)</td>
<td>15.5</td>
<td>0.7</td>
<td>(9.1)</td>
</tr>
<tr>
<td>Kansas City MSA</td>
<td>4.5</td>
<td>(0.6)</td>
<td>(1.7)</td>
</tr>
<tr>
<td>St. Louis MSA</td>
<td>9.6</td>
<td>5.2</td>
<td>(2.0)</td>
</tr>
<tr>
<td>Wichita MSA</td>
<td>3.9</td>
<td>6.4</td>
<td>0.6</td>
</tr>
</tbody>
</table>

*Source: National Association of REALTORS®*
Existing Home Sales

Source: National Association of REALTORS®
Where Do We Go From Here?
Impacts

• Homeowners
  – Loss of equity (maybe) and credit worthiness
  – Where do we live (affordable housing issues)

• Communities
  – External price effects
  – Neighborhood deterioration
  – Homelessness / lack of affordable housing
  – Local budgetary impact (expenditures and revenues)

• Financial Markets
  – Losses to investors (e.g., pension funds)
  – Mark to market and capital loss recovery reserves
  – Tighter underwriting standards
What Do We Do About It?

• Educate Homeowners
  – before they buy
  – when they are in trouble
    • contact servicer
    • counseling agencies (888-995-HOPE)

• Try to fix the servicer problem
  – bring servicers and borrowers together (contacts problem)
  – bring servicers and lenders together (contracts problem)

• Educate and Inform Communities
  – what can happen
  – resources that are available
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