

MBA Accounting and Tax Conference 2002

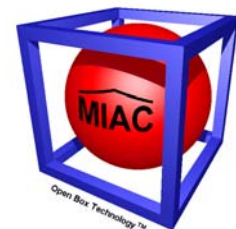
Pipeline Risk Management

Recent Trends, Strategies and Accounting Implications

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Description of Recent Environment

- **Fallout/pull-through rates**
- **Mix of loan products**
- **Hedge effectiveness ratios**

Components to Effective Hedging

- **Matched Durations**
- **Sensitivities of Fall-out/Pull-Through**
- **Interest Rate Volatility**

Components to Effective Hedging

- **Matched Durations**
 - **Empirical Durations/OAS Durations/BMA**
 - **Bifurcation of Loan – MBS and MSR**

Components to Effective Hedging

- **Sensitivities of Fall-out and Volatility**
 - **60 – Lock**
 - **70 – Approved**
 - **80 – Docs**
 - **100 - Closed**

Components to Effective Hedging

Big Rally Early in Pipeline

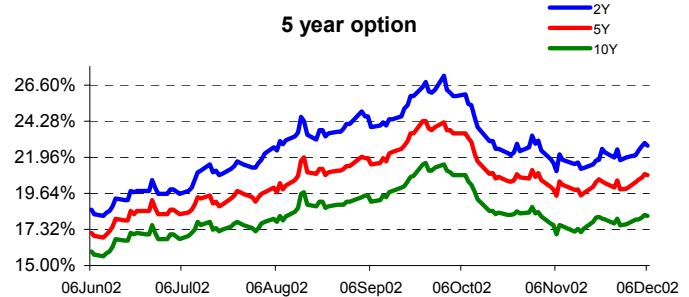
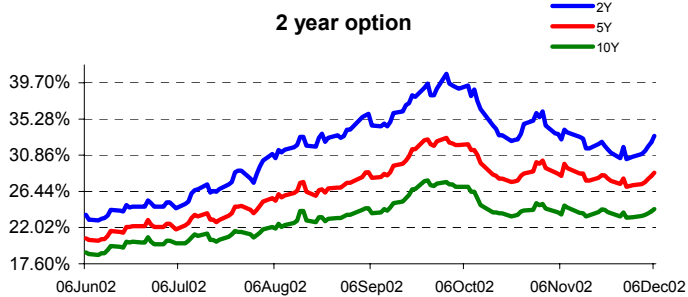
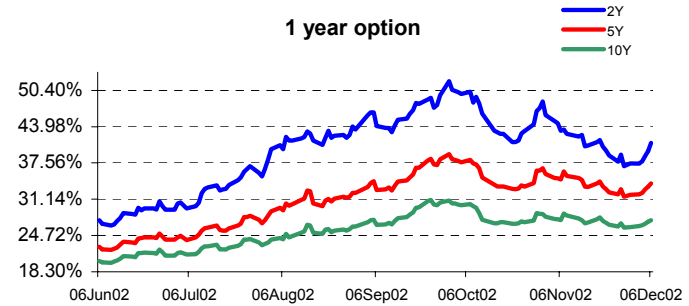
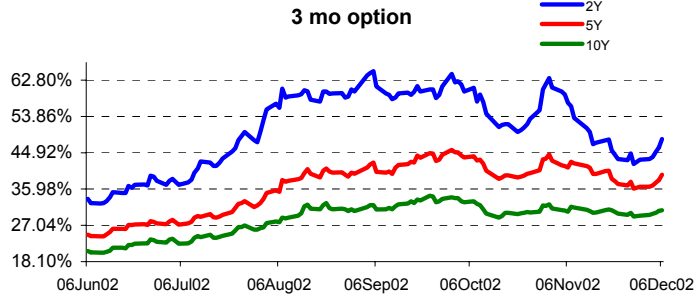
– 40 – Buy Back Forwards

Market Tanks

– 80 – Sell Forwards

Recent Swaption Implied Vols

Start Date **6-Jun-02**
End Date **6-Dec-02**



Warehouse Turnover Ratios

- **Stretched to capacity**
- **Resurgence of Wall St. Repo lines**
- **Large Correspondents Increased Share**
- **Large Correspondents Innovations**

Incorporating MSR into the Pipeline

- **MSR economically created before Settle**
- **LOCOM accounting from Close to Settle**
- **Implications for Hedging Practices**
- **Implications for Hedge Accounting**

Incorporating MSR into the Pipeline

Implications for Hedging Practices

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Position Sensitivity Fixed



<u>Gold 30 6.5</u>		<u>Suggested</u>	<u>Pipeline</u>	<u>Net</u>			<u>Net</u>	<u>Wtd MSR</u>	<u>Exposure</u>
<u>Price</u>	<u>Change</u>	<u>Coverage</u>	<u>Coverage</u>	<u>Exposure</u>	<u>Loan G/L</u>	<u>Trade G/L</u>	<u>Gain/Loss</u>	<u>Value</u>	<u>w/MSR</u>
100.173	35 /32nds	0.85	0.78	(11,024,954)	1,056,418	(1,591,035)	(534,617)	1.68	(16,594,765)
100.036	31 /32nds	0.86	0.79	(10,376,375)	896,724	(1,415,981)	(519,257)	1.68	(15,972,681)
99.899	26 /32nds	0.86	0.80	(9,688,586)	733,722	(1,238,919)	(505,197)	1.68	(15,300,654)
99.761	22 /32nds	0.86	0.80	(8,671,663)	569,151	(1,061,324)	(492,173)	1.69	(14,272,581)
99.623	17 /32nds	0.87	0.81	(7,496,633)	401,421	(882,771)	(481,350)	1.69	(12,917,294)
99.483	13 /32nds	0.87	0.81	(6,748,890)	230,662	(703,045)	(472,383)	1.70	(12,036,783)
99.345	9 /32nds	0.88	0.82	(5,843,107)	57,251	(522,272)	(465,021)	1.70	(11,157,334)
99.204	4 /32nds	0.88	0.83	(4,780,567)	(119,294)	(340,277)	(459,571)	1.70	(10,098,595)
99.063	0 /32nds	0.88	0.83	(3,973,060)	(298,853)	(157,251)	(456,104)	1.71	(9,092,224)
98.921	-5 /32nds	0.89	0.84	(3,291,184)	(480,366)	26,119	(454,247)	1.71	(8,210,489)
98.779	-10 /32nds	0.89	0.84	(2,411,799)	(664,701)	210,719	(453,982)	1.71	(7,354,090)
98.636	-14 /32nds	0.90	0.85	(1,658,419)	(851,705)	395,960	(455,745)	1.71	(6,619,385)
98.493	-19 /32nds	0.90	0.85	(1,069,763)	(1,040,551)	581,889	(458,661)	1.72	(5,976,412)
98.350	-23 /32nds	0.90	0.86	(430,094)	(1,230,803)	768,101	(462,701)	1.72	(5,256,453)
98.206	-28 /32nds	0.91	0.86	163,382	(1,422,009)	954,485	(467,524)	1.72	(4,665,282)
98.062	-33 /32nds	0.91	0.87	743,738	(1,615,376)	1,141,852	(473,523)	1.73	(4,116,996)
97.917	-37 /32nds	0.91	0.87	1,184,041	(1,810,636)	1,330,142	(480,494)	1.73	(3,696,183)

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Implications for Hedging Practices

Print Date: 12/9/2002
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Loan
Vector
Detail



<u>Loan ID</u>	<u>Product Code</u>	<u>Loan Amount</u>	<u>Note Rate</u>	<u>DeliveryID</u>	<u>Delivery SubID</u>	<u>Del Month</u>	<u>Coupon</u>
1038890	100	270,000	7.375	Freddie	FG30	Jun02	0.070000

<u>Description</u>	<u>Buy Price</u>	<u>Shocked Gain/Loss Price</u>	<u>Gain/Loss (bps)</u>	<u>Gain/Loss (\$)</u>	<u>Sens.</u>	<u>Sens. Ratio</u>	<u>Cvg Result</u>	<u>Pull Thru</u>	<u>MSR Value</u>	<u>Sens w/MSR</u>	<u>SR w/MSR</u>
- 24 bps Yld 101.5000	1.0227	76.68		2,070.32	3.16	0.70	0.82	0.82	1.58	2.96	0.65
- 21 bps Yld 101.5000	1.0217	66.97		1,808.12	3.20	0.70	0.82	0.82	1.59	2.99	0.66
- 18 bps Yld 101.5000	1.0207	57.04		1,540.19	3.25	0.71	0.82	0.82	1.59	3.05	0.66
- 15 bps Yld 101.5000	1.0197	47.02		1,269.56	3.30	0.72	0.83	0.83	1.60	3.11	0.67
- 12 bps Yld 101.5000	1.0187	36.78		993.05	3.36	0.72	0.83	0.83	1.60	3.20	0.69
- 9 bps Yld 101.5000	1.0176	26.43		713.52	3.42	0.73	0.84	0.84	1.60	3.29	0.71
- 6 bps Yld 101.5000	1.0166	15.85		428.05	3.47	0.74	0.84	0.84	1.61	3.34	0.71
- 3 bps Yld 101.5000	1.0155	5.20		140.45	3.52	0.74	0.85	0.85	1.61	3.39	0.72
Unch 101.5000	1.0144	(5.65)		(152.55)	3.57	0.75	0.85	0.85	1.61	3.43	0.72
+ 3 bps Yld 101.5000	1.0133	(16.56)		(447.13)	3.61	0.76	0.86	0.86	1.61	3.48	0.73
+ 6 bps Yld 101.5000	1.0122	(27.65)		(746.62)	3.66	0.76	0.86	0.86	1.61	3.52	0.73
+ 9 bps Yld 101.5000	1.0111	(38.82)		(1,048.10)	3.68	0.76	0.87	0.87	1.62	3.55	0.73
+ 12 bps Yld 101.5000	1.0100	(50.04)		(1,351.01)	3.71	0.76	0.88	0.88	1.62	3.57	0.74
+ 15 bps Yld 101.5000	1.0089	(61.35)		(1,656.33)	3.75	0.77	0.88	0.88	1.62	3.61	0.74
+ 18 bps Yld 101.5000	1.0077	(72.78)		(1,965.02)	3.80	0.78	0.89	0.89	1.62	3.66	0.75
+ 21 bps Yld 101.5000	1.0066	(84.37)		(2,277.86)	3.84	0.78	0.89	0.89	1.63	3.70	0.75
+ 24 bps Yld 101.5000	1.0054	(96.02)		(2,592.41)	3.85	0.78	0.90	0.90	1.63	3.71	0.76

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Implications/Challenges for FAS 133

- FAS133 invoked major changes in the requirements for hedge effectiveness testing.
- Lenders can now obtain hedge accounting treatment if they are able to demonstrate that the hedges are highly effective.

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Implications/Challenges for FAS 133

- **Measure Individual Loans' and MSR Price Sensitivities**
 - OAS vs Static Methodologies
 - Price Shocks/Yield Shocks

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Implications/Challenges for FAS 133

- **Create Groups of ‘Similar Assets’ or FAS 133 Buckets**
 - Duration Based FAS 133 Buckets
 - Multiple shocks tests for ‘Similar Assets’

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Beginning of Hedge Period

- **Allocate Hedges to SFAS 133 Buckets**
 - Measure Predicted Price Change of Loans at FAS133 Bucket Level
 - Pro Rata Share of all Hedges to Each Bucket
 - Determine Single Hedge Coverage Ratio

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End of Hedge Period

- **Measure Actual Price Change of Closed and Unclosed Loans**
 - Loan Set is marked-to-market
 - Issues related to Delivered Loans
 - Loans Moving from Funded to Un-funded Status

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End of Hedge Period

- **Measure Actual Price Change of All Hedges**
 - Measure Price Change of All Hedges for Hedge Effectiveness Measurement
 - Allocate the Actual Hedge Change Based on the Pro Rata Share Established at the Beginning of the Hedge Period

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End of Hedge Period

- **Effectiveness Testing Methodology**
 - Dollar-Offset Method
 - Statistical Method

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End of Hedge Period

- **Tracking Accounting Entries for Each Hedge Period**
 - Changes to Closed and Unclosed Loans
 - Changes to Hedges
 - Adjust Basis of Individual Loans within Each FAS 133 Bucket

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Hand-off the MSR to the Balance Sheet

- **Securitization/Sale of Loan and Retention of the MSR**
- **The hedge-adjusted MSR book value goes on the balance sheet**
- **Ongoing communication between pipeline position and MSR balance sheet**

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