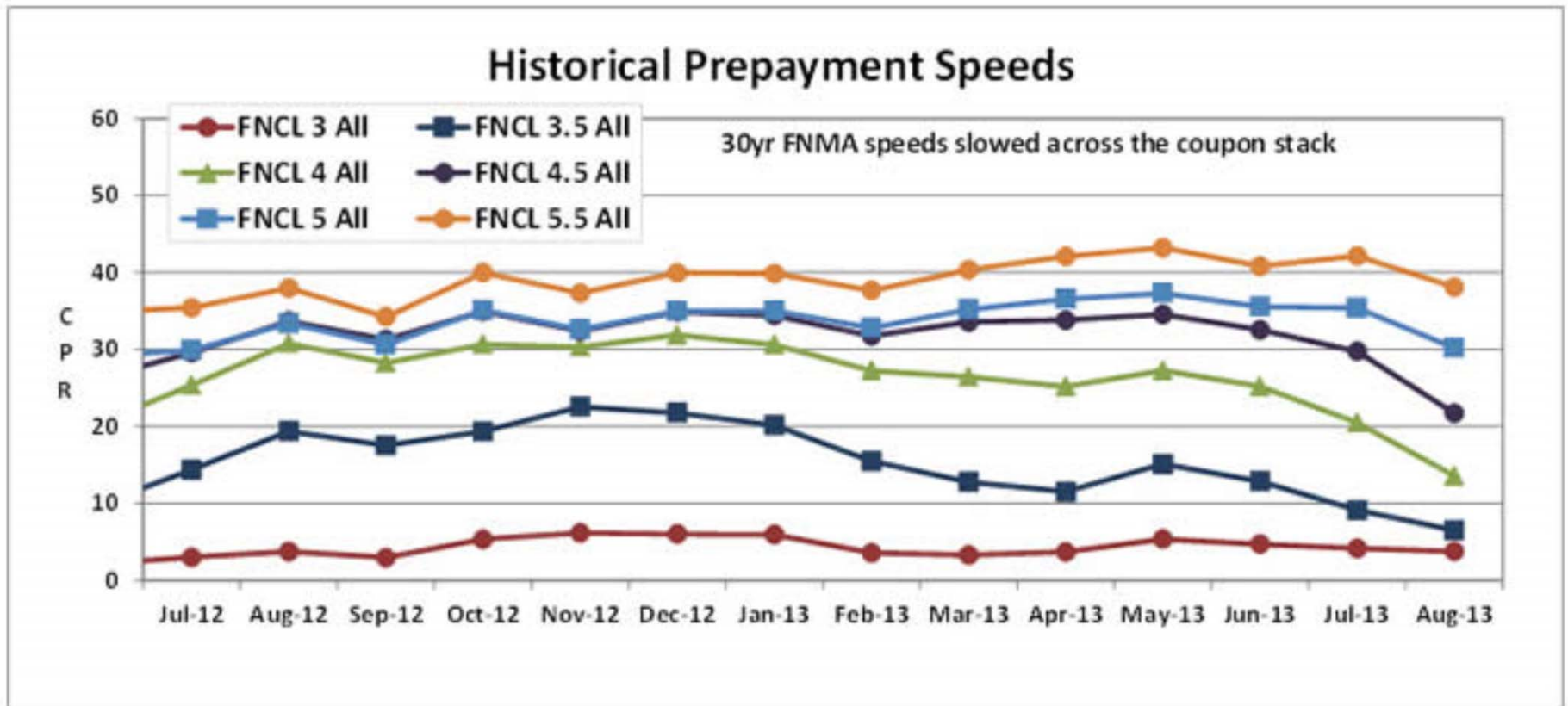

Mortgage Strategies in the Current Economic Environment

Katie Hopkins
SVP, Investment Strategies
khopkins@viningsparks.com

Mortgage Market Trends



Limited Mortgage Opportunities

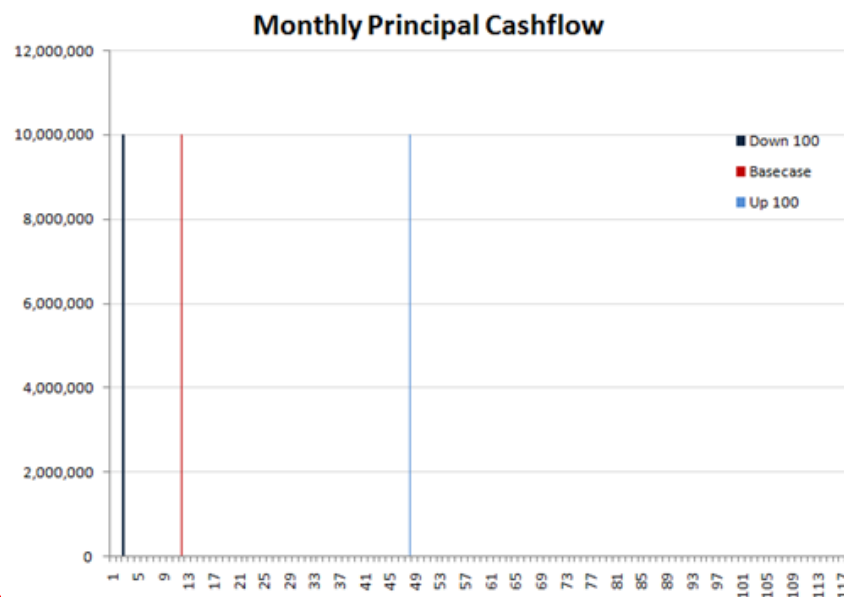
- “Fed” products, 15yr and 30yr current coupons, relatively tight
- Off the run terms, 10yr and 20yr, sometimes cheaper
- Relative value in non-TBA collateral including jumbo, high LTV, and relo
- Low price (near par) products that shorten
- High price (premium market price) products with moderate extension potential

Still worthwhile because...

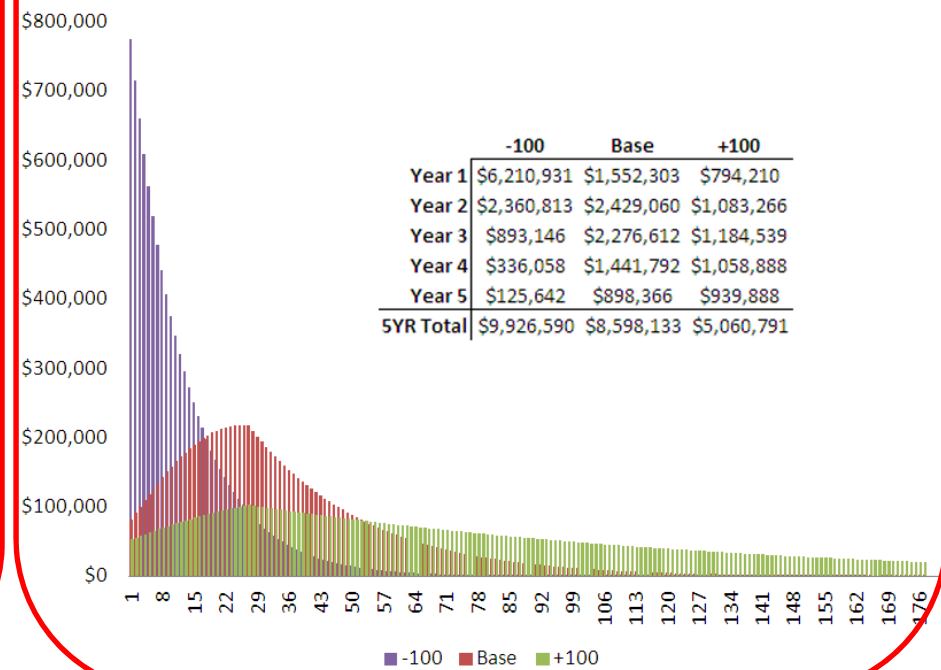
- Other sectors also tight
- Spreads with limited credit risk
- Myriad terms and structures
- Market dynamics support spreads
- Liquidity
- Current cash flows
- Pockets of value remain

Cashflow Comparison: All-or-Nothing vs. Monthly

5Yr NC 3Mo



15yr 3% MBS



Prepayments

- Mortgage holders can prepay their loans
 - Refinance
 - Move
 - Default
- Additional principal passed through to bond holders
- Prepayments are one of the most important factors when determining your return

TODO LIST

1. GROCERY SHOPPING
2. SPEND TIME WITH FAMILY/FRIENDS
3. WATCH STORAGE WARS



TODO LIST

...

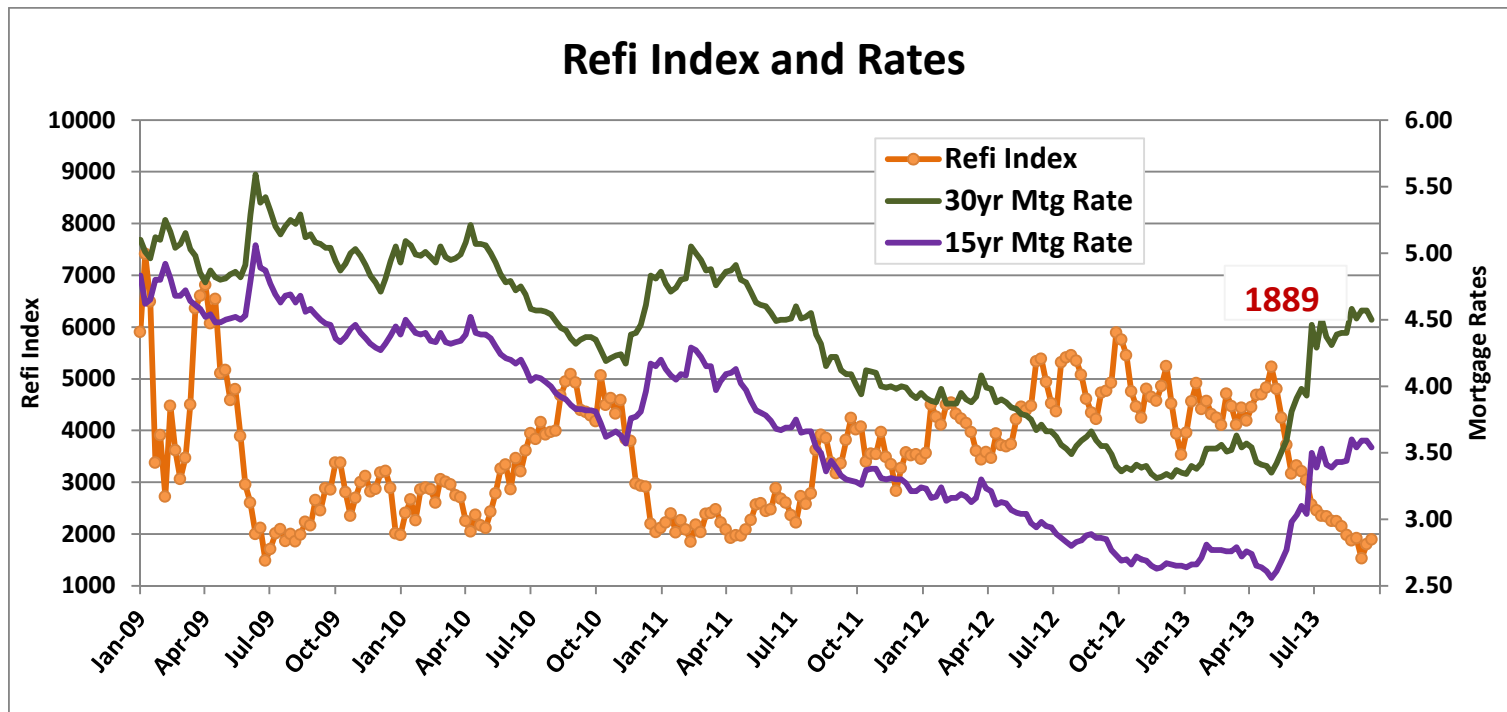
99. TAKE SPARE CHANGE TO COINSTAR

100. CALCULATE THE PRESENT VALUE OF MY
FUTURE CASHFLOWS USING SEVERAL
DIFFERENT REFINANCING SCENARIOS

What Impacts Mortgage Prepayment Speeds?

- **Mortgage Rates**
- Weighted average coupon (WAC)
- Product Type
- Loan size
- Loan age (WALA)
- Occupancy
- Servicer
- Loan-to-value
- FICO Score/Borrower Debt-to-Income
- Policy

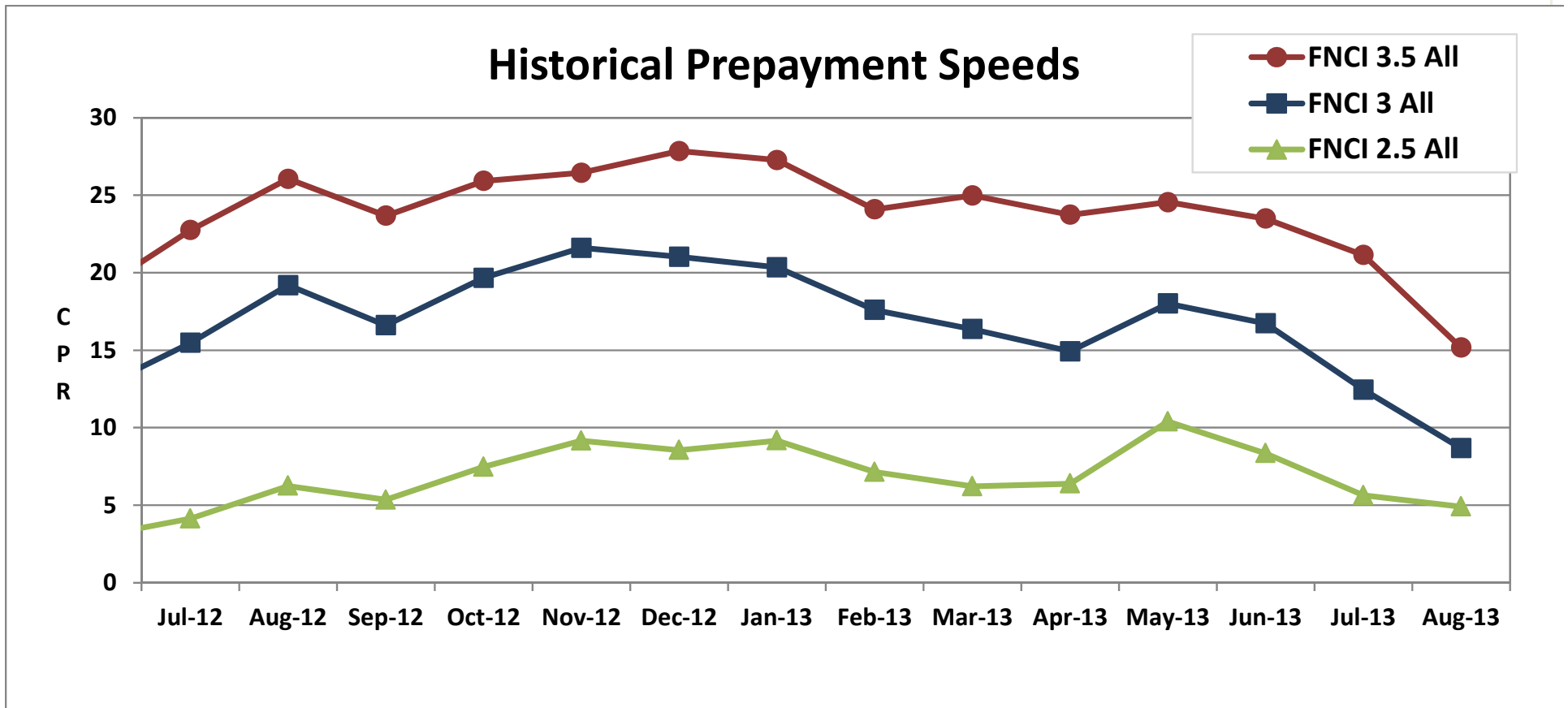
Rates Impact Refis/Prepays; Inverse Relationship



What Impacts Mortgage Prepayment Speeds?

- Mortgage Rates
- **Weighted average coupon (WAC)**
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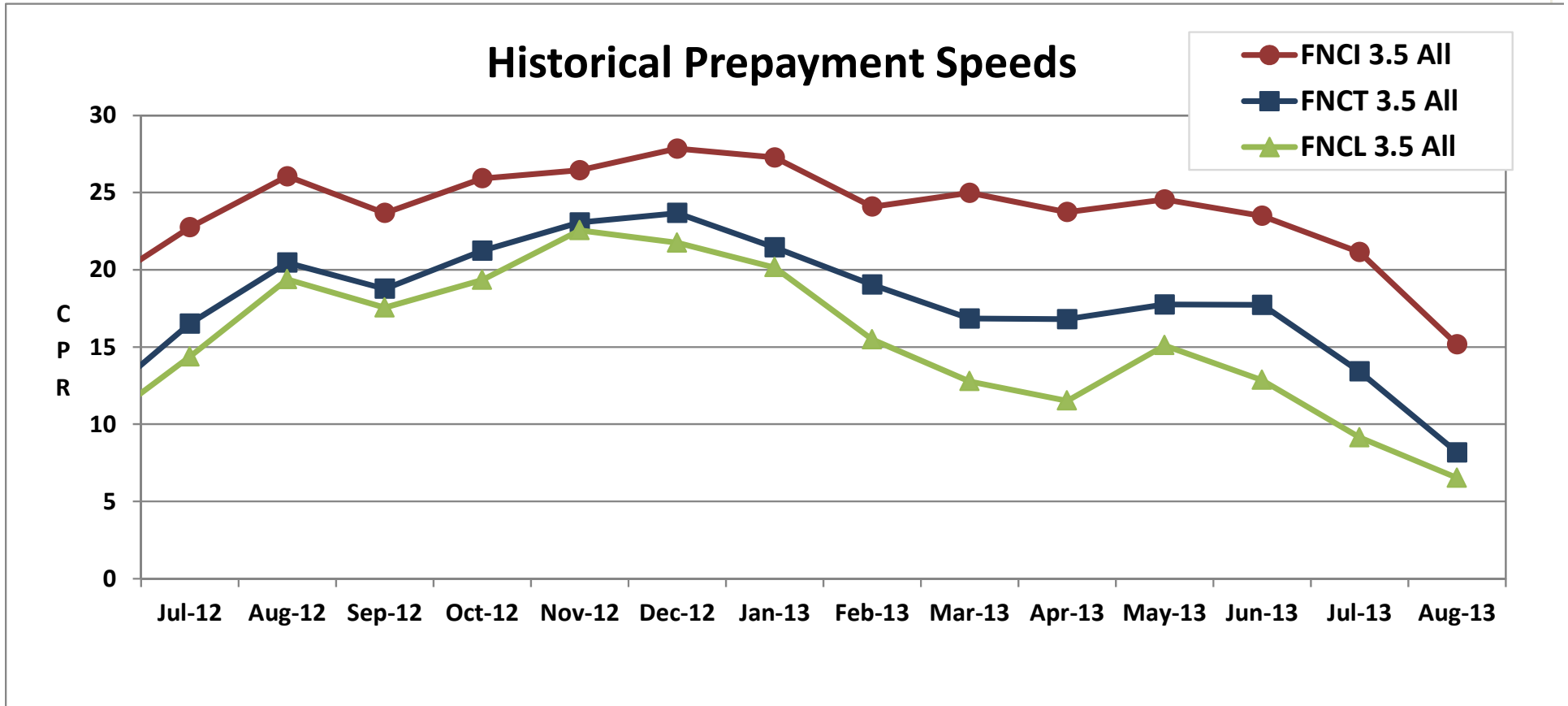
Prepayment Speeds Vary by Coupon...



What Impacts Mortgage Prepayment Speeds?

- Mortgage Rates
- Weighted average coupon (WAC)
- **Product Type**
- Loan size
- Loan age (WALA)
- Occupancy
- Servicer
- Loan-to-value
- FICO Score/Borrower Debt-to-Income
- Policy

Prepayment Speeds by Product Type



Identify Collateral Concentrations

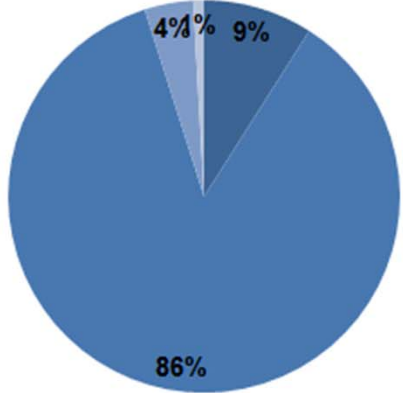


Portfolio Snapshot Sample Bank of Sampleton

Fixed-Rate Portfolio Compositions

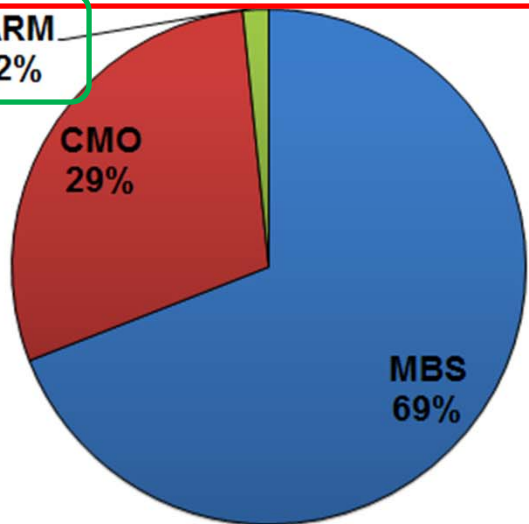
	MBS				GNMA		CMO				GNMA		CMO and MBS Combined Portfolio						
	FNMA/FGLMC						FNMA/FGLMC						FNMA/FGLMC			GNMA			
	10yr	15yr	20yr	30yr	15yr	30yr	10yr	15yr	20yr	30yr	15yr	30yr	10yr	15yr	20yr	30yr	15yr	30yr	
< 2.5																			
2.5	1.59%												1.11%	1.08%					
3.0	2.53%	48.59%	3.29%					3.64%					1.78%	35.06%	2.31%				
3.5	3.08%	17.25%	0.71%					3.15%					2.16%	25.74%	1.18%				
4.0	1.51%	18.58%						39.04%	2.26%				1.06%	14.84%	3.86%		0.50%		0.50%
4.5	0.32%	1.65%			0.90%			6.03%	12.97%	1.68%			0.22%	1.16%		1.02%	0.63%	2.68%	
5.0							0.70%			3.42%		8.99%	0.21%			0.86%		4.04%	
5.5										2.89%		13.56%							
6.0																			
6.5																			
7+																			
										0.00%									0.00%

■ FN/FH 10yr
■ FN/FH 15yr
■ FN/FH 20yr
■ GN 15yr

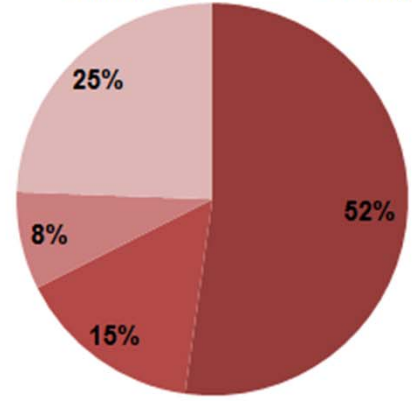


MBS Collateral

ARM
2%



■ FN/FH 15yr
■ FN/FH 20yr
■ FN/FH 30yr
■ GN 30yr



CMO Collateral

What Impacts Mortgage Prepayment Speeds?

- Mortgage Rates
- Weighted average coupon (WAC)
- Product Type
- **Loan size**
- Loan age (WALA)
- Occupancy
- Servicer
- Loan-to-value
- FICO Score/Borrower Debt-to-Income
- Policy

Batman and Robin's "To-Do" List



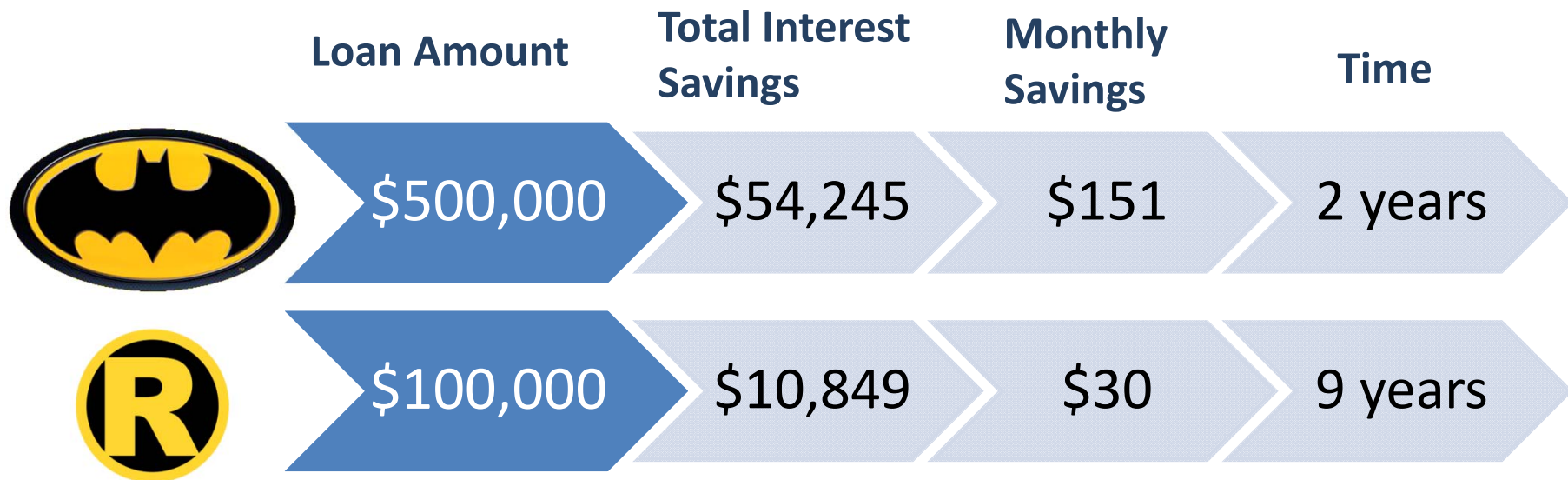
Batman and Robin's "To-Do" List



Batman and Robin's "To-Do" List




Batman vs. Robin: Refi Incentive?



Pow!



Cohort Comparison Tab



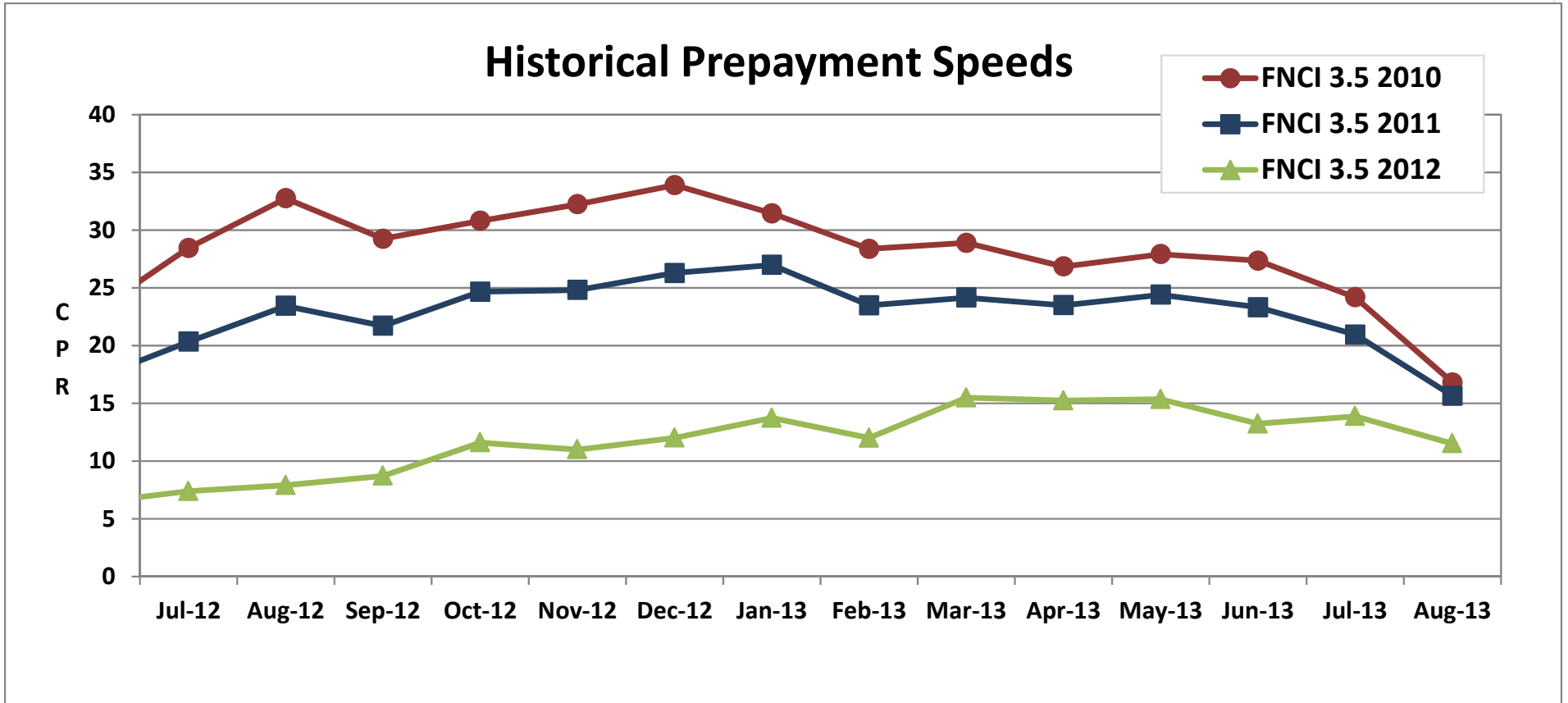
Security	Cohort	Bond Speeds			Cohort Speeds				Difference				Wavg Loan Size						
		WAC	*WAC	Diff	CPR 1M	CPR 3M	CPR 12M	CPR ISS	*CPR 1M	*CPR 3M	*CPR 12M	*CPR ISS	Diff 1M	Diff 3M	Diff 12M	Diff ISS	Orig	*Orig	Diff
Totals/Wavg		3.805	3.801	0.003	30.5	28.7	25.9	18.6	26.6	25.6	22.9	16.1	3.9	3.1	1.9	2.5	274,033	227,274	46,189
FG G18406	FGCI 3 2011	3.388	3.490	-0.102	57.5	56.7	44.2	39.4	29.4	27.7	19.9	17.7	28.1	29.0	24.3	21.7	288,881	237,174	51,707
FG J16794	FGCI 3 2011	3.692	3.490	0.202	35.2	33.2	25.0	20.9	29.4	27.7	19.9	17.7	5.7	5.5	5.1	3.2	278,425	237,174	41,251
FG J17506	FGCI 3 2011	3.432	3.490	-0.058	7.3	7.9	5.4	5.4	29.4	27.7	19.9	17.7	-22.2	-19.8	-14.6	-12.3	131,122	237,174	-106,052
FG E03033	FGCI 3 2011	3.407	3.490	-0.083	41.9	36.6		25.9	29.4	27.7	19.9	17.7	12.5	8.9		8.3	271,250	216,626	34,076
FG E03072	FGCI 3 2012	3.331	3.475	-0.144	44.9	33.9		20.3	19.4	18.3	25.4	10.5	25.4	15.6		9.8	321,991	216,626	99,563
FN AB4282	FNCI 3 2011	3.391	3.450	-0.059	43.8	38.6	21.9	21.9	28.8	26.2	17.2	14.8	14.9	12.4	4.8	7.1	308,875	267,657	41,218
FN AB4725	FNCI 3 2012	3.467	3.450	0.017	34.7	26.1		16.1	15.7	13.8	18.4	7.7	19.0	12.3		8.4	319,463	238,734	87,266
FN AB4726	FNCI 3 2012	3.472	3.450	0.022	37.2	34.6		18.7	15.7	13.8	18.4	7.7	21.5	20.8		10.9	326,313	238,734	94,116
FN AB4726	FNCI 3 2012	3.472	3.450	0.022	37.2	34.6		18.7	15.7	13.8	18.4	7.7	21.5	20.8		10.9	326,313	238,734	94,116

- Maps each pool or CMO to a collateral type (ex: FNCI 3% 2011) and compares to collateral averages

What Impacts Mortgage Prepayment Speeds?

- Mortgage Rates
- Weighted average coupon (WAC)
- Product Type
- Loan size
- **Loan age (WALA)**
- Occupancy
- Servicer
- Loan-to-value
- FICO Score/Borrower Debt-to-Income
- Policy

Prepayment Speeds by Vintage



What Impacts Mortgage Prepayment Speeds?

- Mortgage Rates
- Weighted average coupon (WAC)
- Product Type
- Loan size
- Loan age (WALA)
- **Occupancy**
- Servicer
- Loan-to-value
- FICO Score/Borrower Debt-to-Income
- Policy

What Impacts Mortgage Prepayment Speeds?

- Mortgage Rates
- Weighted average coupon (WAC)
- Product Type
- Loan size
- Loan age (WALA)
- Occupancy
- **Servicer**
- Loan-to-value
- FICO Score/Borrower Debt-to-Income
- Policy

Servicer Example: Mortgage Investors Corp

Cusip	Coupon	June CPR	Top Servicer	Servicer %
36225FBC2 Mtge	2.5	26.5	Green Planet Servicing, Llc	98.03
36225FAL3 Mtge	2.5	29.8	Green Planet Servicing, Llc	97.6
36225FA41 Mtge	2.5	0.1	Nationstar Mortgage, Llc	100
36225FB57 Mtge	2.5	31.1	Green Planet Servicing, Llc	99.21
36225FC72 Mtge	2.5	76.6	Mortgage Investors Corporation	94.49
36225FDU0 Mtge	2.5	0	Nationstar Mortgage, Llc	55.71
36225FD63 Mtge	2.5	78.5	Mortgage Investors Corporation	94.67
36225FE21 Mtge	2.5	80.4	Mortgage Investors Corporation	90.19
36225FF20 Mtge	2.5	76.5	Mortgage Investors Corporation	87.71
36225FGM5 Mtge	2.5	71.4	Mortgage Investors Corporation	81.3
36225FHF9 Mtge	2.5	78.5	Mortgage Investors Corporation	83.96
36225FJC4 Mtge	2.5	80.8	Mortgage Investors Corporation	84.94
36225FJX8 Mtge	2.5	78.6	Mortgage Investors Corporation	75.37
36225FKK4 Mtge	2.5	80.7	Mortgage Investors Corporation	85.04
36225FLA5 Mtge	2.5	85.6	Mortgage Investors Corporation	93.06
36225FLU1 Mtge	2.5	82.1	Mortgage Investors Corporation	94.46
36225FL98 Mtge	2.5	85.6	Mortgage Investors Corporation	96
36179MBP4 Mtge	2.5	85	Mortgage Investors Corporation	97
36179MDR8 Mtge	2.5	63.6	Mortgage Investors Corporation	54.68
36179MFT2 Mtge	2.5	23.9	United Security Financial Corp	63.19
36179MHV5 Mtge	2.5	30.1	United Security Financial Corp	82.74
36179MLY4 Mtge	2.5	11.7	United Security Financial Corp	86.23

Solution: Diversify, diversify and...DIVERSIFY

Descriptive Information

Loan Count	Geo:		Purpose (%)		Top Servicer	%	Stat M
	TPO	First	2nd	Purch Refi			
3,460	37.2		7	93			
	79.7	CA 22	NJ 7	2	98	Provident Funding (94066)	93.02
681	60.3	CA 15	NY 13	19	81	JPMC, NA (43219)	100.00
3,113	24.3	TX 9	CA 8	4	96	Wells Fargo, NA (50328)	100.00
3,855	16.3	CA 11	WI 10	5	95	Wells Fargo, NA (50328)	53.74
554	8.3	CA 15	IL 10	4	96	Wells Fargo, NA (50328)	44.23
928	42.3	CA 35	IL 7	3	97	Chicago MTG Solutions DBA Interbank	31.73
796	18.2	CA 29	NJ 6	6	95	JPMC, NA (43219)	87.24
764	18.4	CA 29	WA 5	5	96	JPMC, NA (43219)	94.00
764	18.4	CA 29	WA 5	5	96	JPMC, NA (43219)	94.00

Displays:

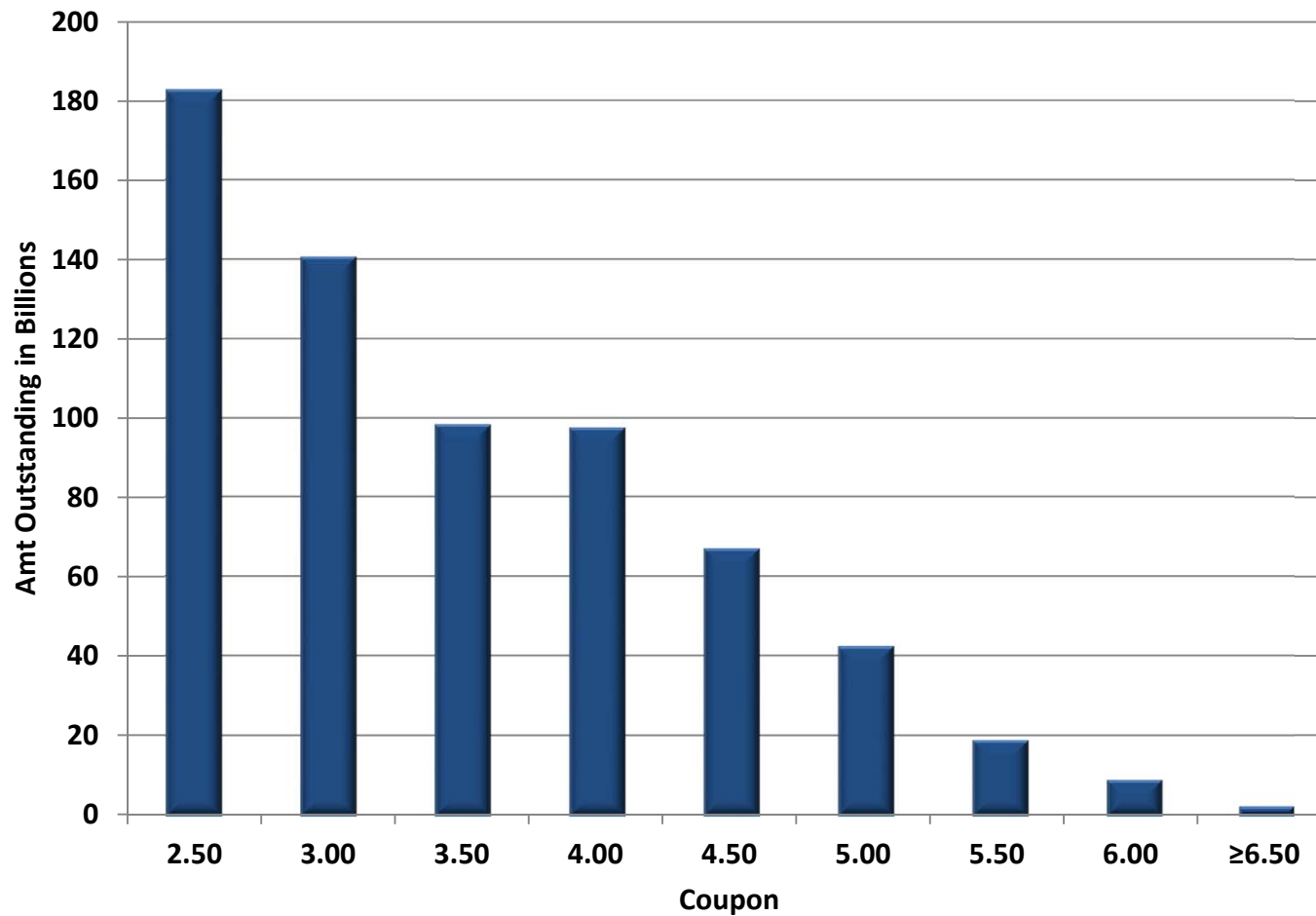
- Loan Count
- WALA and Vintage
- Third Party Origination (TPO)
- Top 2 Geos
- Purpose: Purchase vs. Refi
- Top Servicer and Percentage

What Impacts Mortgage Prepayment Speeds?

- Mortgage Rates
- Product Type
- Loan size
- Loan age (WALA)
- Weighted average coupon (WAC)
- Occupancy
- Servicer
- **Loan-to-value**
- **FICO Score/Borrower Debt-to-Income**
- **Policy**

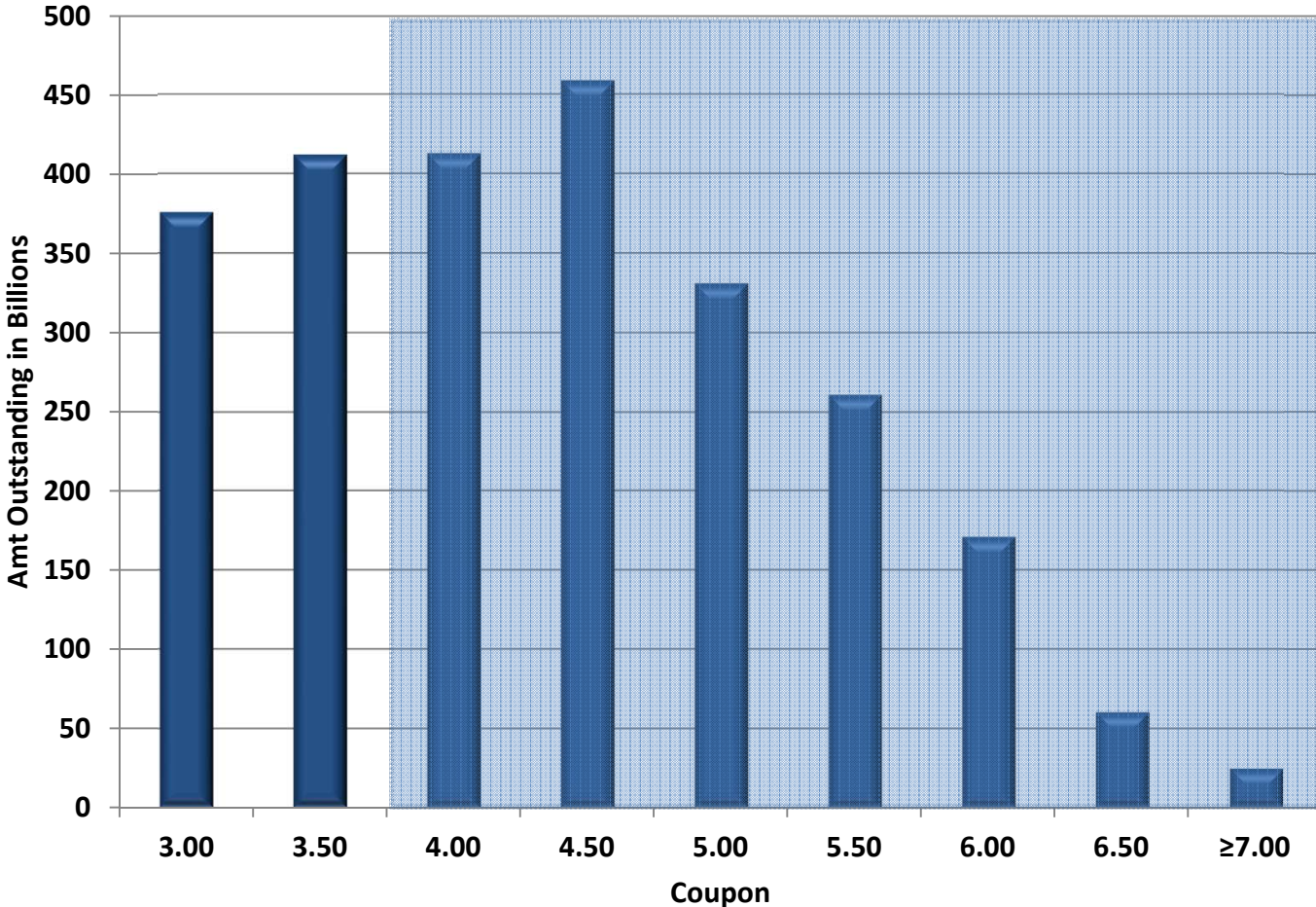
15yr Market Overview

Conventional 15yr Outstanding Balance

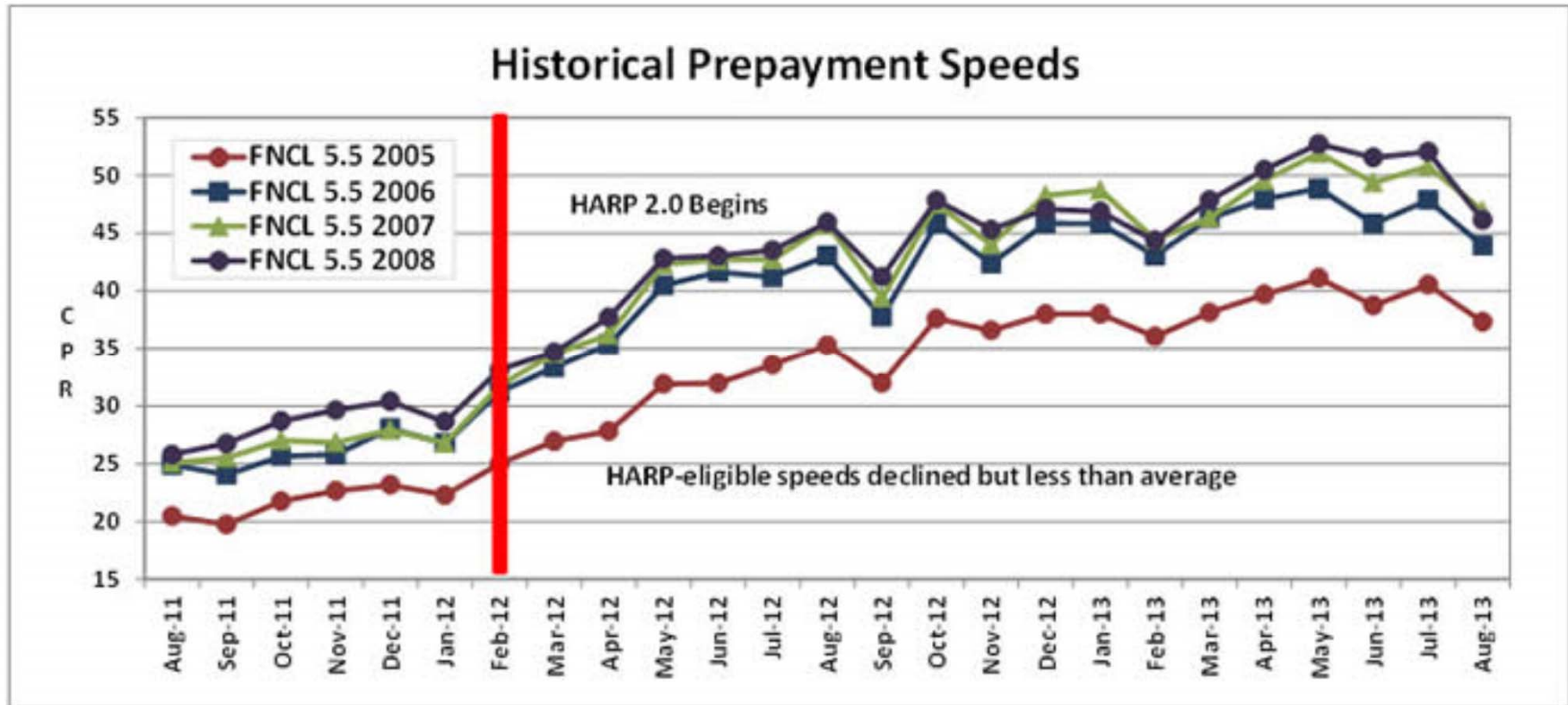


30yr Market Overview

Conventional 30yr Outstanding Balance



HARP 2.0 Impact



Since its inception in December of 2011, speeds on eligible pools have increased 16-22 CPR

Monitor Prepay/Extension Risk

- PREPAYMENT REPORT
- High premium prices
- Possibility of faster/slower speeds
- Unacceptable yields
- Price exposure
- Need for diversification of risk

For many customers, prepayments represent the greatest risk to current portfolio holdings and one of the most important likely determinant of returns.

Performance Monitoring

- Trends
 - Recent speeds
 - Policy change and news impacts
 - Burnout potential
- Yields
 - Current and expected
 - Using recent historical speeds
 - At adjusted speeds
 - At scenario speeds
 - Book and market

Prepay Scenarios Yield Tab

Pool	Generic	Current	Book Price	Market Price	Book Gain / Loss	%Book		CPR			ISS	Del 60+
						Gain / Loss		1M	3M	12M		
Totals/Wavg		595,005,438	103.445	105.797	13,996,533	2.27%		30.5	28.7	25.9	18.6	0.1
FG G18406	FGCI 3	7,847,308	102.265	105.160	227,235	2.83%		57.5	56.7	44.2	39.4	0.0
FG J16794	FGCI 3	6,971,080	103.540	105.160	112,945	1.56%		35.2	33.2	25.0	20.9	0.0
FG J17506	FGCI 3	8,957,746	103.110	106.660	318,063	3.44%		7.3	7.9	5.4	5.4	0.0
FG E03033	FGCI 3	11,155,662	103.746	105.160	157,819	1.36%		41.9	36.6		25.9	0.0
FG E03072	FGCI 3	12,139,964	103.180	105.160	240,408	1.92%		44.9	33.9		20.3	0.0
FN AB4282	FNCI 3	11,090,849	103.947	105.628	186,493	1.62%		43.8	38.6	21.9	21.9	
FN AB4725	FNCI 3	20,652,011	103.979	105.691	353,459	1.65%		34.7	26.1		16.1	
FN AB4726	FNCI 3	8,051,305	103.882	105.691	145,592	1.74%		37.2	34.6		18.7	
FN AB4726	FNCI 3	12,076,957	103.943	105.691	211,057	1.68%		37.2	34.6		18.7	

- Book Gain/Loss Calculations
- Average Life and Yield Calculations

Average Life at:							Book BEY :						Market BEY :						
CPR	CPR	CPR	BPM	BPM	BPM		CPR	CPR	CPR	BPM	BPM	BPM		CPR	CPR	CPR	BPM	BPM	BPM
3M	3M+20	8	0	100	-50		3M	3M+20	8	0	100	-50		3M	3M+20	8	0	100	-50
2.57	1.44	4.94	3.69	4.61	2.96		1.75	0.68	2.54	2.26	2.47	2.02		0.72	-1.10	2.02	1.53	1.89	1.17
1.15	0.70	5.15	4.21	5.10	3.25		0.90	-0.41	2.51	2.40	2.50	2.23		-1.52	-4.31	1.91	1.68	1.90	1.32
2.13	1.25	5.13	3.77	4.79	2.81		1.24	0.07	2.24	1.98	2.18	1.65		0.49	-1.17	1.90	1.54	1.83	1.07
5.16	2.49	5.16	4.47	5.22	3.65		2.33	1.66	2.33	2.23	2.34	2.07		1.61	0.27	1.61	1.41	1.63	1.08
1.93	1.15	5.18	4.30	5.16	3.40		0.97	-0.35	2.20	2.05	2.20	1.81		0.25	-1.79	1.91	1.71	1.91	1.39
2.09	1.23	5.19	4.45	5.27	3.62		1.38	0.31	2.32	2.21	2.33	2.04		0.45	-1.79	1.91	1.75	1.93	1.48
1.86	1.12	5.23	4.28	5.20	3.22		0.74	-0.66	2.15	1.97	2.14	1.65		-0.13	-2.06	1.81	1.57	1.80	1.18
2.70	1.53	5.28	4.29	5.23	3.21		1.40	0.25	2.15	1.97	2.14	1.64		0.78	-2.28	1.81	1.56	1.80	1.11
2.09	1.24	5.28	4.29	5.23	3.21		1.01	-0.29	2.17	1.99	2.16	1.67		0.17	-2.28	1.81	1.56	1.80	1.11
2.09	1.24	5.28	4.29	5.23	3.21		0.98	-0.33	2.16	1.97	2.15	1.65		0.17	-2.28	1.81	1.56	1.80	1.11



Portfolio Action Motivations

- Low (or sometimes negative) book yields
- Low market yields
 - Economic decision driver
 - Time sensitive opportunities
 - TBA eligibility creates inefficiencies
- Over-allocation to specific types of risk
- Book gains and losses

Relative Value: The Fed's Leftovers

Meatloaf AGAIN?

- Hybrid ARMs
- 20yr MBS
- Off-the-Run Collateral

Relative Value: Hybrid ARMs

- Relative value vs. fixed – not on Fed’s target list
- Relatively tame prepayments
- 7/1 and 10/1 hybrids alternatives 15yr “current” coupons (2.5%s and 3.0%s)
- 3/1 GNMA hybrids alternatives for shorter GNMA CMOs

20yr Collateral

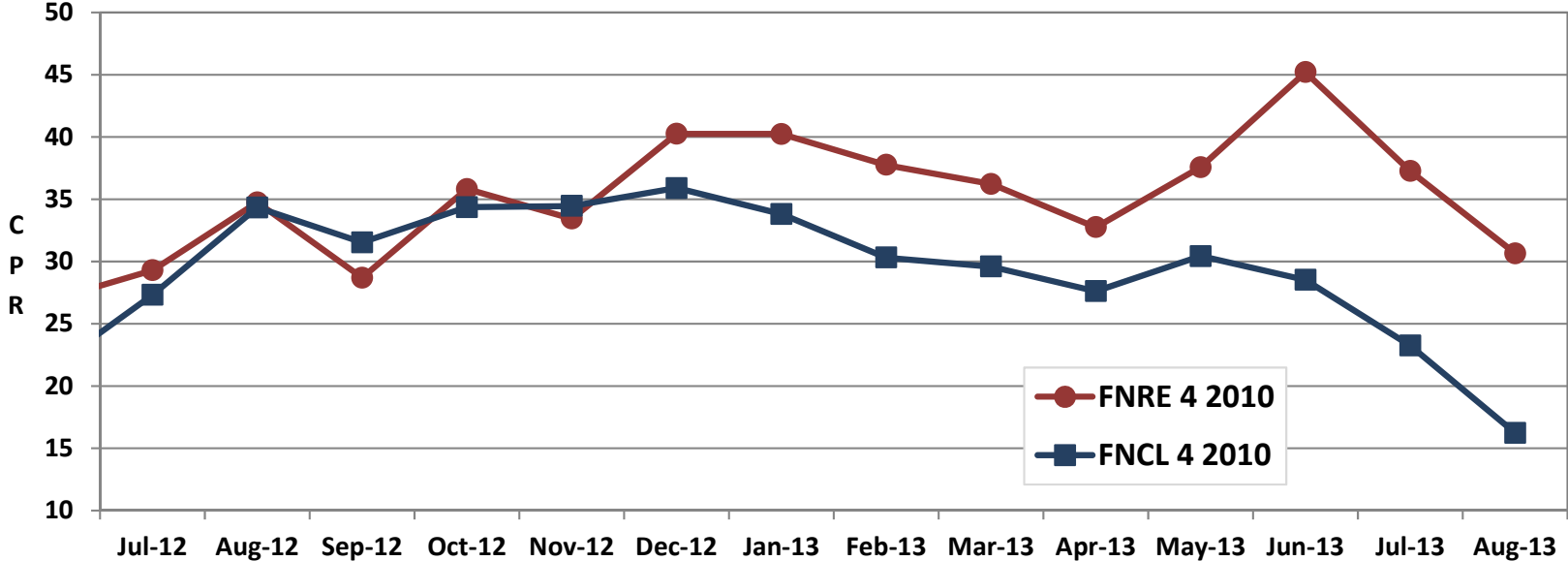
	Yield	Price Vol
10yr 3% MBS	1.83	-8.6
15yr 3.5% MBS	1.86	-10.5
20yr 3.5% MBS	2.51	-10.6
30yr 3.5% MBS	3.60	-17.8

Relative Value: Off-the-Run Collateral

- High LTV, Relo, Jumbo
- Benefit: slightly DISLOCATED from rate-related behavior

Relocation Loans may Prepay Without Rate Incentive

Historical Prepayment Speeds



FGLMC Buyout Speeds Minimal

FGLMC 4.5

Page 1/2 Agency Generic Description

1) Description

2) Prepayments

3) Delinq/Buyouts

4) Collateral

5) BB Median

Table Graph

	% Delinquent				Buyout %Bal	Buyout CPR				VPR			
	30D	60D	90D	120D+		1m	3m	6m	12m	1m	3m	6m	12m
08/13	0.76	0.22	0.10	0.00	-	0.73	0.73	0.74	0.72	22.16	28.92	31.94	33.18
07/13	0.91	0.22	0.10	0.00	-	0.71	0.71	0.75	0.71	30.73	33.14	33.66	34.17
06/13	0.67	0.19	0.10	0.00	-	0.75	0.72	0.75	0.70	33.40	34.46	34.33	34.15
05/13	0.70	0.19	0.10	0.00	-	0.68	0.75	0.75	0.69	35.22	34.83	34.74	33.75
04/13	0.77	0.21	0.10	0.00	-	0.74	0.78	0.76	0.68	34.74	34.18	34.46	33.05
03/13	0.78	0.22	0.11	0.00	-	0.84	0.77	0.74	0.66	34.53	34.19	34.71	32.38
02/13	0.68	0.21	0.11	0.00	-	0.78	0.74	0.71	0.64	33.26	34.64	34.40	32.07
01/13	0.75	0.23	0.11	0.00	-	0.70	0.73	0.68	0.62	34.75	34.73	34.66	31.75
12/12	0.73	0.19	0.09	0.00	-	0.75	0.71	0.66	0.61	35.85	35.23	33.95	30.98
11/12	0.64	0.19	0.09	0.00	-	0.73	0.67	0.63	0.60	33.57	34.16	32.60	30.24
10/12	0.74	0.20	0.09	0.00	-	0.67	0.64	0.61	0.58	36.23	34.59	31.41	29.92
09/12	0.56	0.16	0.08	0.00	-	0.63	0.60	0.59	0.56	32.63	32.61	29.74	29.30
08/12	0.56	0.16	0.08	0.00	-	0.64	0.60	0.59	0.54	34.84	30.86	29.38	28.58
07/12	0.58	0.16	0.08	0.00	-	0.55	0.57	0.57	0.52	30.20	27.87	28.41	26.99
06/12	0.51	0.15	0.06	0.00	-	0.60	0.57	0.57	0.50	26.99	26.54	27.55	25.63
05/12	0.50	0.13	0.07	0.00	-	0.57	0.57	0.57	0.47	26.12	27.78	27.56	24.36
04/12	0.47	0.14	0.07	0.00	-	0.53	0.57	0.56	0.45	26.49	28.87	28.18	22.82



GNMA Collateral: Higher Buyout Speeds

GNSF 4.5

Page 1/5

Agency Generic Description

1) Description

2) Prepayments

3) Delinq/Buyouts

4) Collateral

5) BB Median

Table

Graph

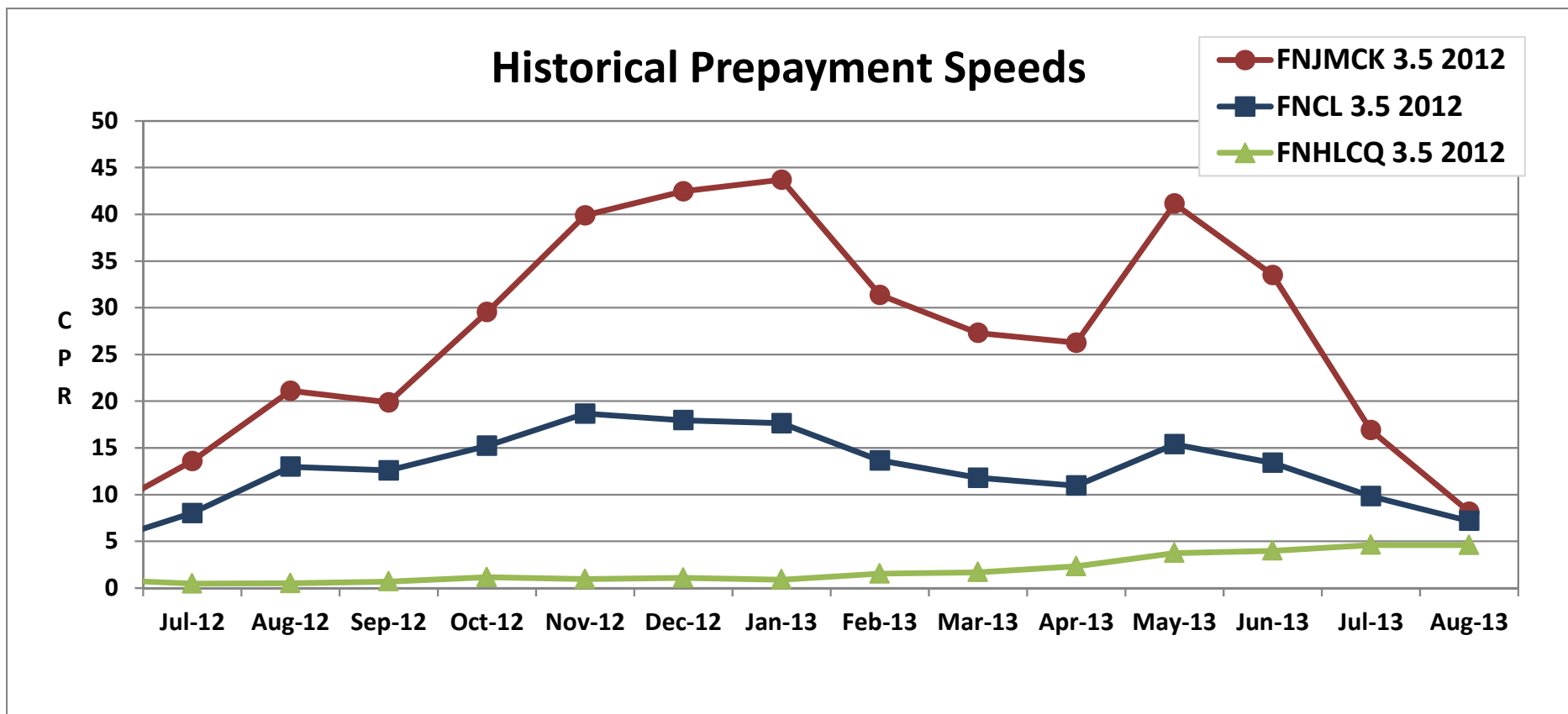
	% Delinquent			FrCl.	Buyout	Buyout CPR				VPR				FHA	VA
	30D	60D	90D	%Bal	%Bal	1m	3m	6m	12m	1m	3m	6m	12m	%Bal	%Bal
08/13	3.90	1.30	2.33	0.02	-	5.36	5.87	4.43	4.14	18.21	23.05	26.90	27.49	0.00	0.00
07/13	3.80	1.33	2.49	0.02	-	8.69	6.10	4.19	3.96	23.94	26.79	28.35	28.33	0.00	0.00
06/13	3.94	1.21	2.99	0.02	-	4.31	4.02	3.54	3.54	26.10	29.26	28.89	28.52	0.00	0.00
05/13	3.10	1.11	3.02	0.03	-	6.03	3.35	3.64	3.42	29.59	30.29	29.36	28.16	0.00	0.00
04/13	3.13	1.10	3.35	0.02	-	2.49	2.87	3.66	3.15	31.39	29.41	29.03	27.08	0.00	0.00
03/13	3.08	1.12	3.36	0.02	-	2.49	3.11	3.77	3.16	29.13	28.46	28.69	26.04	0.00	0.00
02/13	3.27	1.23	3.36	0.02	-	3.80	3.95	3.86	3.16	27.52	28.40	28.08	25.33	0.00	0.00
01/13	3.56	1.38	3.51	0.02	-	3.18	4.66	3.74	3.08	28.63	28.48	28.32	24.61	0.00	0.00
12/12	3.73	1.42	3.44	0.02	-	5.10	4.56	3.54	3.05	28.86	28.81	28.16	23.54	0.00	0.00
11/12	3.39	1.31	3.42	0.02	-	6.24	3.78	3.21	2.91	27.53	27.75	26.94	22.34	0.00	0.00
10/12	3.47	1.37	3.54	0.02	-	2.97	3.00	2.71	2.75	29.53	28.01	25.01	21.19	0.00	0.00
09/12	3.50	1.32	3.36	0.01	-	2.89	2.75	2.65	2.80	25.51	27.33	23.21	19.83	0.00	0.00
08/12	3.11	1.24	3.14	0.01	-	3.13	2.73	2.59	2.80	28.92	26.04	22.38	18.58	0.00	0.00
07/12	3.27	1.27	3.00	0.01	-	2.30	2.44	2.54	2.77	27.46	21.87	20.61	16.72	0.00	0.00
06/12	3.07	1.16	2.78	0.01	-	2.82	2.56	2.62	2.78	21.50	18.86	18.54	14.83	0.00	0.00
05/12	2.87	1.11	2.61	0.01	-	2.25	2.45	2.64	2.77	16.21	18.52	17.42	13.47	0.00	0.00
04/12	2.79	1.05	2.47	0.01	-	2.64	2.64	2.80	2.75	18.75	19.33	17.16	12.47	0.00	0.00



CMO Advantages

- Coupon variety available
- Structuring possibilities
 - Reduce prepayment risk
 - Limit extension risk
 - Tailor cash flows
- Collateral diversity
 - Higher loan counts
 - Broader spectrum of servicers, geography, etc
- Less payup for some loan traits

Jumbos/30yr/High LTV



Three Options: TBA vs. High LTV vs. Jumbo

- TBA @ 106-16 = small bid/ask spread, more liquid
- High LTV @ 107-17 = slower and more stable speeds
- Lower price jumbo @ 104-14 = less price risk (spread compression) and less premium, fast speeds

There are multiple ways to manage mortgage premium and mitigate risk. Diversification may be the most important.

Conclusion

- Prepays most important factor in yield performance
- Put yourself into the shoes of the borrower when thinking about prepayment sensitivity
- Diversify collateral types and coupons
- Prepayment Report can help to reveal risks
- CMOs can help gain exposure to other collateral types
- Relative value in ARMs, 20yr collateral, Fed Leftovers

Notes

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