

Mortgage Market Focus – Market Watch

MBS Strategy

2010 – Transitioning the MBS market to a new normal

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- 2010 is likely to be a three- (at least) act play with Q1:10 more or less building on Q4:09, with key themes being carry trades, tight spreads, Fed still a major MBS buyer, and MBS supply still relatively robust.
- Q2 should represent Act 2, with the market adjusting to the post-Fed landscape, the end of the homebuyer tax credit, and debate on GSE reform. H2:10 is Act 3, which we think will either represent stabilization or a renewed leg down in housing.
- We estimate that roughly 3.2 million foreclosures must be prevented in 2010 for home prices to stabilize or potentially tick up. This is an uphill challenge, but a combination of current government programs and their future iterations offer a narrow path for success.

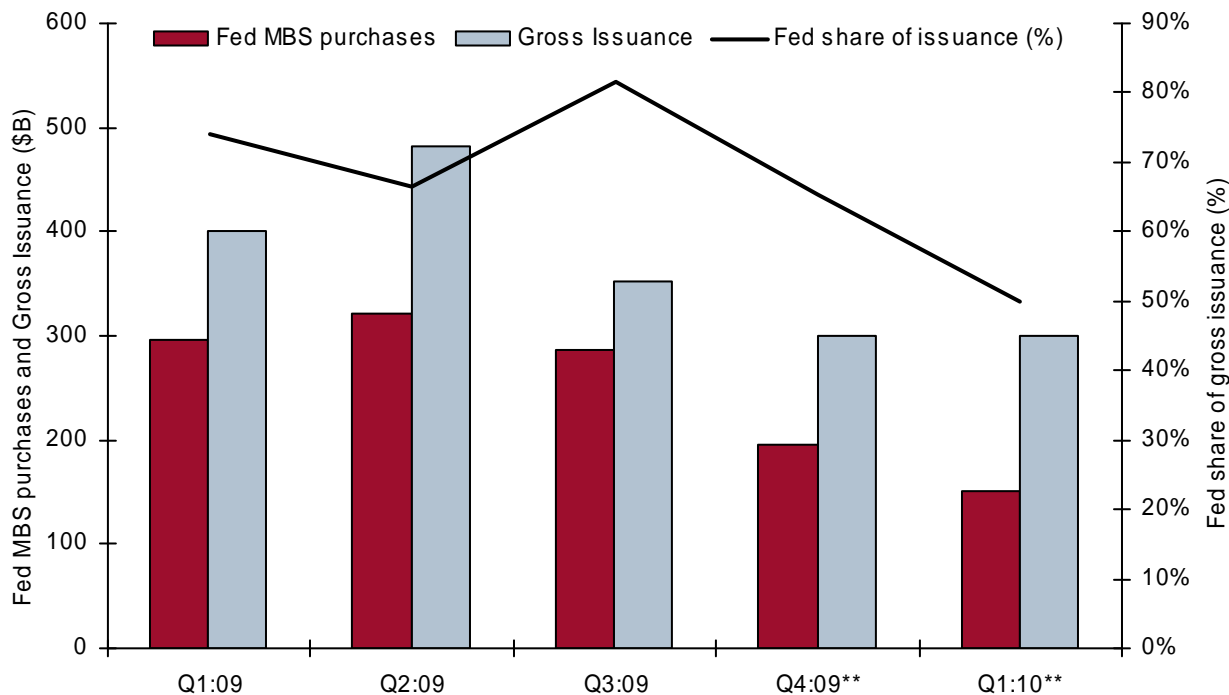
We cast the following outlook for the mortgage market in 2010:

- The Fed's exit from the MBS purchase program will likely be well absorbed by the market. An accommodative Fed and continued demand for high quality assets limits the likelihood of an isolated dislocation in MBS, in our view.
- After Q1:10, Fed will likely assume a backstop role in the MBS market to prevent a double dip in housing. It could provide liquidity to the market through outright and dollar roll sales on an as needed basis.
- The government (Fed/Treasury/GSEs) will likely be the largest owner of Agency MBS for the foreseeable future. We think attracting increased purchases by traditional investors such as money managers, banks, and foreign investors is key to long-term stability of the MBS market.
- Whether or not delinquent loan buyouts by GSEs count towards their portfolio caps will be an important determinant of supply/demand, in our view. Exemption of these loans will limit GSEs' need to sell pass-throughs to make room for buyouts.
- GSE reform is necessary to potentially enable GSEs to re-emerge as active investors/backstops and to re-engage foreign investors. It is notable that following the Fed's exit, the MBS market will be without a clear backstop for the first time since the mid-1990s.
- Loan modifications/buyouts will be a key driver of prepayments in 2010. Successful traction on HAMP should frontload modification-related speeds and vice versa. Voluntary buyouts by the GSEs remain a risk and could cause spikes in speeds.

- Servicer buyouts should keep GNMA speeds elevated, although there could be periodic respites as pipelines are flushed out from time to time.
- The high collateral quality of 2009 vintage could cause models to understate duration on low coupons (30-year 4s and 4.5s). Although these coupons will be highly negatively convex in theory, mortgage rates will need to make new lows to realize the call risk projected by models.
- If the Fed does not roll or sell its holdings of 30-year 5s and 5.5s, the TBA deliverable will extend beyond the traditional sub 24 WALA cohort to include the 2007 and late 2006 vintages. We do not anticipate material relative value implications from this.
- Coupon stack valuations reflect a combination of slow prepaids and mod/buyout risk. These trades remain tactical for the time being. We like IO exposure in Trust form.

Fed MBS program exit and bank reserves draining strategies

Fed MBS purchases have been a stable share of gross issuance in 2009, projected to decline in Q1:2010



*Gross Issuance is on a one-month forward basis.

**Projected Fed MBS purchases through end of program based on a gradual slowdown. Gross issuance for the year at \$1.5T with roughly \$100B/month in Q4:09 and Q1:10.

- The recent slowdown in Fed purchases has not affected spreads because the purchase share of issuance has remained stable.

Source: Credit Suisse, Federal Reserve

Fed will own the majority of tradable float across the coupon stack at the end of the purchase program

Coupon Stack	Projected float (< 24 WALA) at the end of Q1:10 (\$B)	Projected Fed holdings at the end of Q1:10 (\$B)	Projected Fed holdings at the end of Q1:10 (%)
30-Yr FH+FN			
3.5	1	0	19%
4.0	184	152	82%
4.5	585	403	69%
5.0	353	263	75%
5.5	225	192	85%
6.0	117	17	14%
6.5	27	3	12%
7.0	8	0	0%
Total	1,500	1,029	69%
15-Yr FH+FN			
3.5	1	0	0%
4.0	75	22	30%
4.5	73	13	18%
5.0	27	0	1%
5.5	7	0	1%
6.0	1	0	0%
6.5	0	0	0%
7.0	0	0	0%
Total	184	36	20%

Assumptions – Fed purchases across the 30-year FN/FH coupon stack are in line with their recent purchases trends, while purchases across 15-year FN/FH coupon stack are in line with their year-to-date purchase trends. The tradable float is less than 24 WALA, pool that is typically delivered to TBA.

- High Fed share of tradable float on 4s, 5s, and 5.5s will continue to support dollar rolls on these coupons.

Source: Credit Suisse, Federal Reserve

Fed has gains, but unlikely to sell outright in 2010

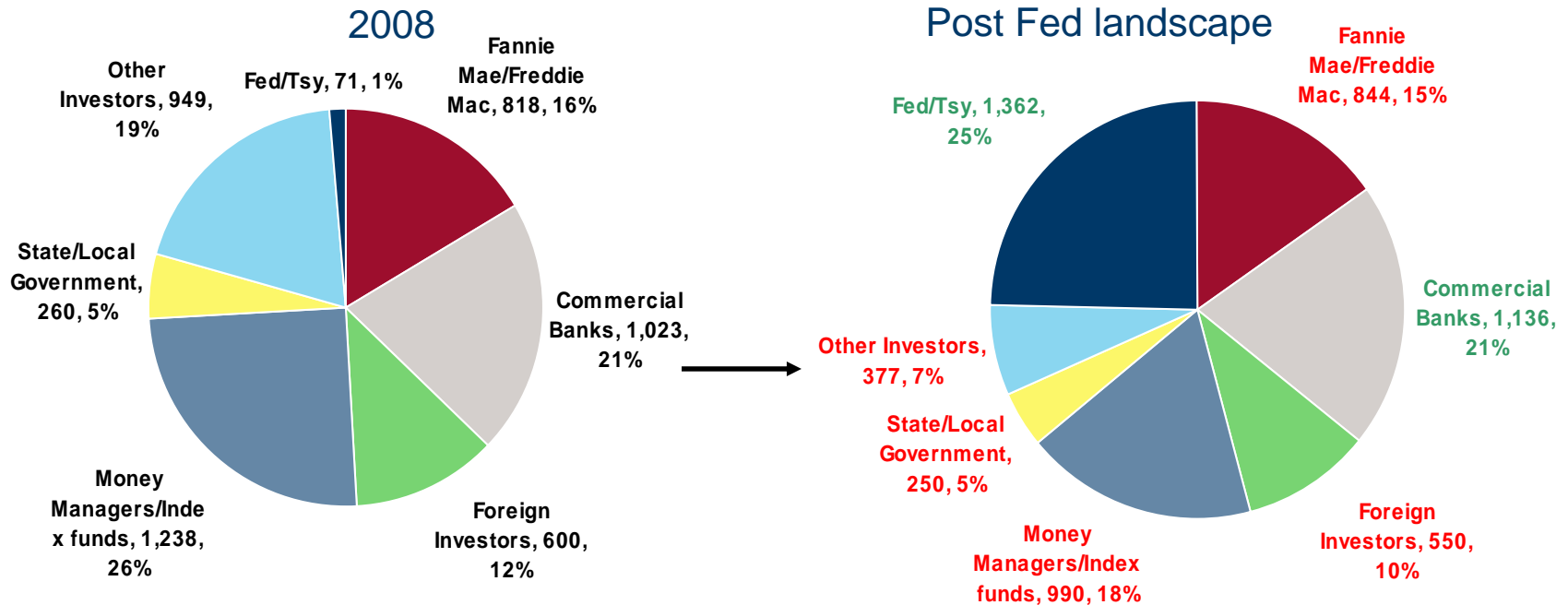
30-Year	Purchase by coupon (\$B)	Avg price purchased	Current price	P&L on price change (\$B)
4.0	156	99.63	97.93	-2.7
4.5	439	100.80	100.77	-0.1
5.0	249	102.34	103.44	2.7
5.5	153	103.88	105.44	2.3
6.0	19	104.56	106.58	0.4
6.5	3	104.07	107.60	0.1
Total	1,019	101.54	101.82	2.7

- Fed could play a backstop role for the MBS market beyond Q1:2010 in order to avoid a housing double dip.
- Fed is unlikely to sell its MBS holdings near-term just to reduce balance sheet.
- However, it should be willing to provide liquidity to the market via outright and dollar roll sales.

Note: Prices as of 16 December 2009

Source: Federal Reserve

High government ownership will limit spread dislocation when the Fed program ends



- Government will remain the largest owner of Agency MBS (40%) even after the end of MBS purchase program.
- Money managers and banks will have to increase their share of MBS to absorb the slack following Fed's exit.

Source: Credit Suisse, Inside MBS/ABS, Fannie Mae, Freddie Mac, Federal Reserve, US Treasury

Credit Suisse estimates for supply and demand for 2010

<u>Gross Supply (\$B)</u>		
1,000		
<u>Gross Demand (\$B)</u>		
	Scenario I	Scenario II
Fed	150	150
GSEs	-130	45
Banks	245	245
Foreign Investors	70	70
Money managers	395	395
Slack	271	97

<u>Net Supply (\$B)</u>		
220		
<u>Net Demand (\$B)</u>		
	Scenario I	Scenario II
Fed	40	40
GSEs	-235	-61
Banks	90	90
Foreign Investors	0	0
Money managers	250	250
Slack	75	-99

Assumptions:

Scenario I – Loans bought out of MBS pools are subject to portfolio caps

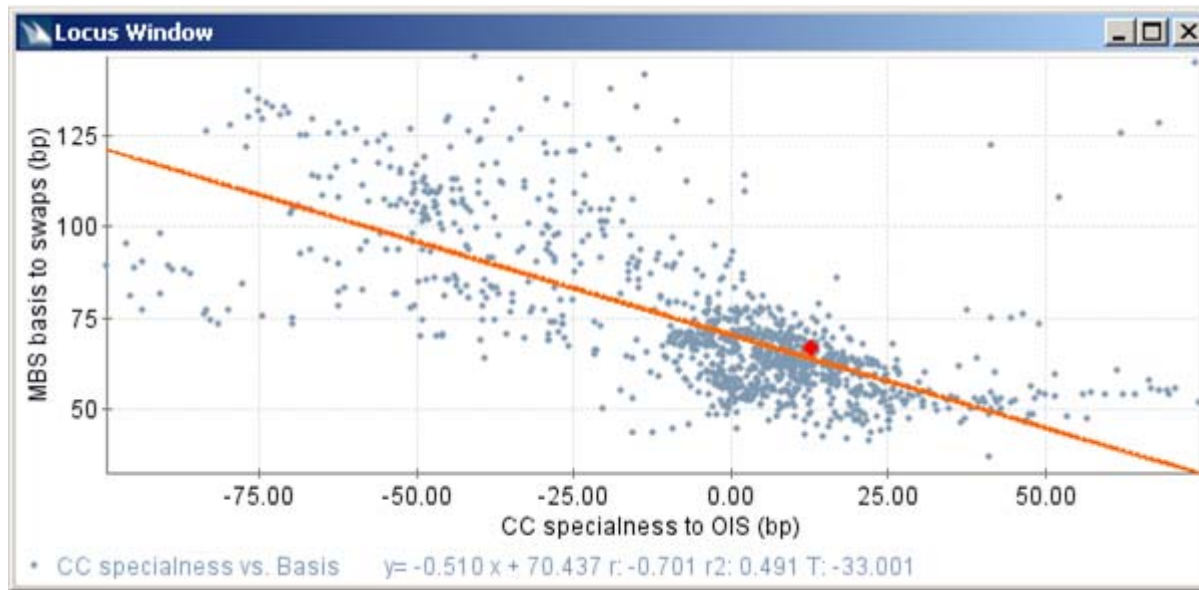
Scenario II – Bought out loans are exempt from portfolio caps

- Banks/money managers/foreign investors would need to absorb an additional \$100B to \$270B in 2010 gross supply beyond their 2009 run rate/short covering.
- Net slack is much smaller because roughly \$175B in mods/buyouts are removed from the float and placed into GSE portfolios.

Source: Credit Suisse, Inside MBS/ABS, Fannie Mae, Freddie Mac, Federal Reserve

Fed could sell dollar rolls to drain bank reserves

Dollar roll cheapening	0.25%	A
Lost carry over 12 months	0.25%	B
Spread duration of FN 4.5s	4.8	C
Implied spread widening per 25bp cheapening in rolls	5	D = B/C*10000

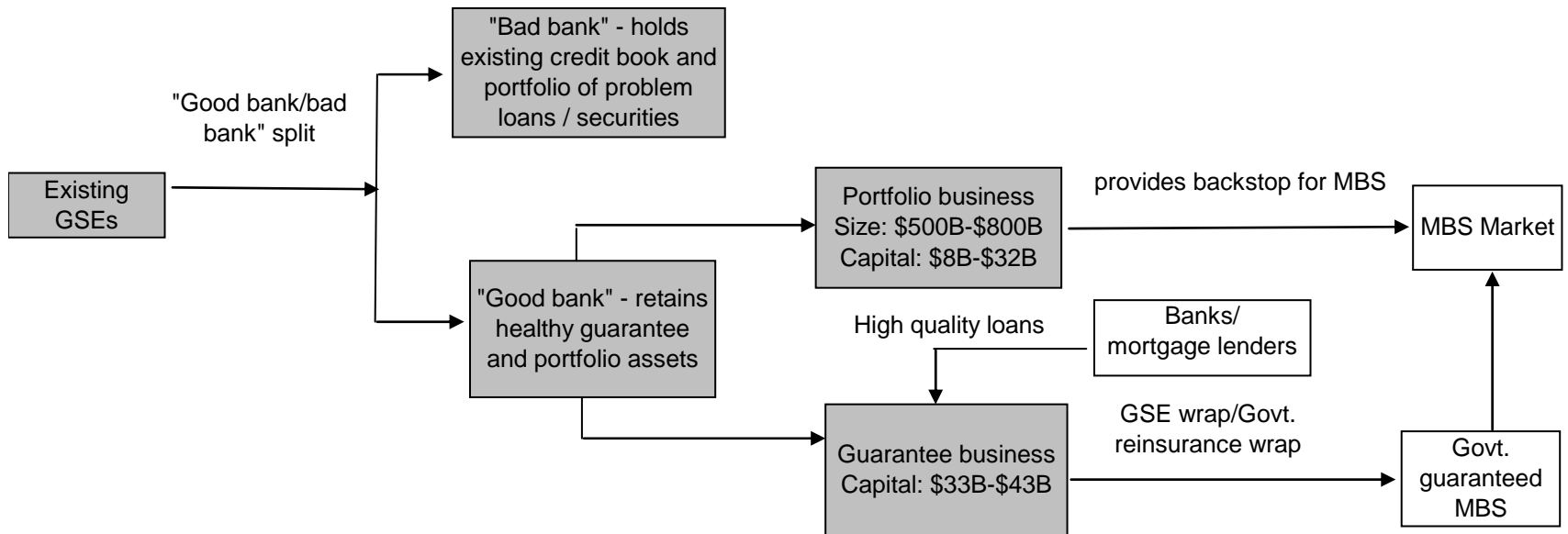


- Selling dollar rolls are a powerful tool for Fed to drain bank reserves and to provide liquidity to the MBS market.
- Lost carry implies a 5bp basis widening for each 25bp cheapening in dollar rolls.

Source: Credit Suisse

GSE Reform

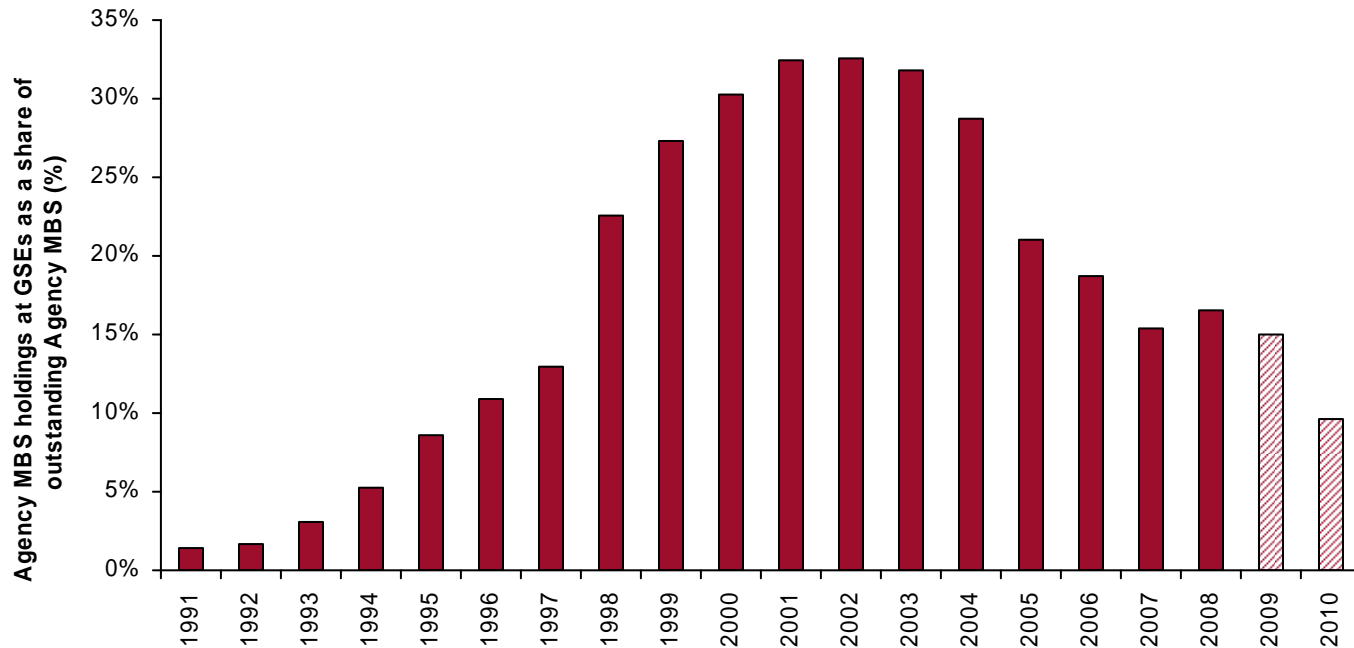
Credit Suisse GSE reform proposal



- A "good bank / bad bank" split of the GSEs
- Enhanced capital requirements
- Well defined and stricter underwriting standards
- "Full faith and credit" government reinsurance wrap on the MBS
- A scaled down but still substantial portfolio business
- Problem loans/securities to be managed through the "bad bank"

Source: Credit Suisse

GSE portfolios have been a backstop for the MBS market since the mid-1990s



Assumptions: 2010 Agency MBS holdings share is based on reduction in the GSE portfolio due to buyouts/modifications and assuming that loans bought out of MBS pools are subject to portfolio caps

- Please see *Mortgage Market Comment* dated 6 October 2009 for details of the Credit Suisse proposal.

Source: Credit Suisse, Inside MBS/ABS, Fannie Mae, Freddie Mac

Prepayments

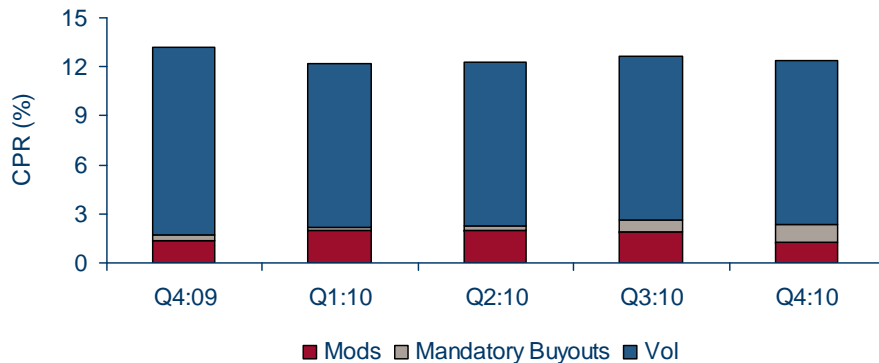


Prepayment Outlook

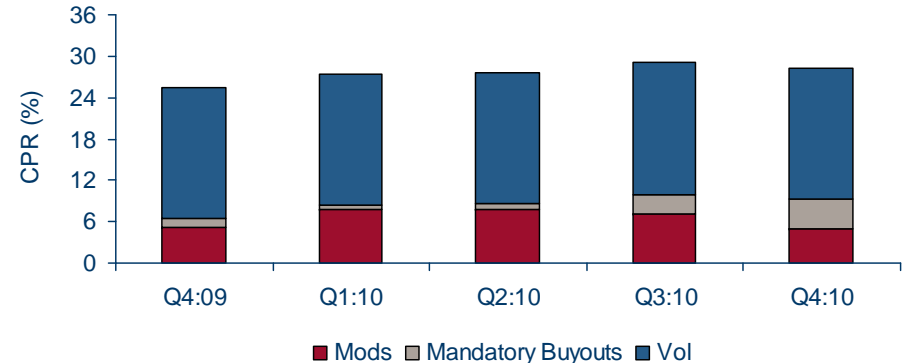
- Mods/buyouts will be a key driver of prepayments in 2010
- Uncertainty with regards to the timing of buyouts remains:
 - If HAMP is successful, mod-related buyouts to dominate in H1:10, mandatory buyouts in H2:10
 - Voluntary buyouts by the GSEs could result in front loading of buyouts causing significant spikes in prepayments
 - Failure on the HAMP front could result in back loading of buyouts
- Models may overstate call risk (understate duration) on low coupons
- TBA deliverable in 5s and 5.5s can become more seasoned if Fed decides not to roll/sell its holdings
- GNMA speeds will remain elevated due to servicer buyouts

FN/FH prepayments in 2010 will be driven mainly by HAMP and mandatory buyouts

Breakdown of 30-year Prepayments
Coupon: 5.5 and below



Breakdown of 30-year Prepayments
Coupon: 6.0 and above



- HAMP to dominate H1:10, mandatory buyouts in H2:10. Involuntary prepays will constitute roughly 20% and over 30% of prepayments on lower (5.5s and below) versus higher coupons.
- FAS 166/167 adoption raises the risk that GSEs will voluntarily frontload buyouts because they no longer trigger a punitive mark-to-market hit. Political pressure against MBS sales should limit this, but an FHFA exemption from portfolio caps for buyouts magnifies this risk.

Source: Credit Suisse

Mod/buyout impact to be most pronounced on 2007 vintage. Higher speeds on FNMA compared with Gold

90+ delinquencies as of Q3:09 – Freddie Mac (reported)

Vintage/Coupon	5.0	5.5	6.0	6.5	7.0
2006	3.0%	4.4%	5.7%	8.4%	12.4%
2007	3.0%	4.3%	6.7%	11.4%	19.9%
2008	0.9%	2.1%	3.7%	7.1%	13.2%

90+ delinquencies as of Q3:09 – Fannie Mae (CS estimate)

Vintage/Coupon	5.0	5.5	6.0	6.5	7.0
2006	4.1%	6.1%	7.8%	11.5%	17.0%
2007	4.1%	5.9%	9.2%	15.7%	27.4%
2008	1.2%	2.9%	5.1%	9.8%	18.1%

Projected speeds due to HAMP/buyouts – Gold 30-year

H1: 2010

Vintage/Coupon	5.0	5.5	6.0	6.5	7.0
2006	2.6	3.7	4.5	6.2	7.8
2007	2.5	3.5	5.2	8.1	12.7
2008	0.8	1.7	2.7	4.3	6.9

H2: 2010

Vintage/Coupon	5.0	5.5	6.0	6.5	7.0
2006	2.6	3.8	4.9	7.5	11.6
2007	2.5	3.7	5.8	10.1	17.7
2008	0.8	1.9	3.4	6.9	13.1

Projected speeds due to HAMP/buyouts – FNMA 30-year

H1: 2010

Vintage/Coupon	5.0	5.5	6.0	6.5	7.0
2006	3.5	4.9	6.1	8.0	10.8
2007	3.5	4.9	7.1	11.2	17.9
2008	1.0	2.4	3.8	6.1	10.0

H2: 2010

Vintage/Coupon	5.0	5.5	6.0	6.5	7.0
2006	3.5	5.2	6.8	10.4	15.5
2007	3.5	5.1	7.9	13.7	23.2
2008	1.1	2.5	4.6	9.3	17.3

Source: Credit Suisse

Models may overstate call risk (understate duration) on low coupons

Collateral Characteristics

Coupon	Orig Year	Current Balance (\$B)	Factor	WAC	AOLS		SATO		FICO	Current				Serious Del (%)
					(K)	% Refi	(bp)	OLTV		LTV	%Curr LTV>80	%Curr LTV>90		
4	2009	113.0	0.98	4.59	248	84	-45	769	65.0	67.4	0	0	0.0	
4.5	2009	263.0	0.98	4.95	236	82	-11	763	68.2	70.5	1	0	0.0	
5	2009	67.8	0.95	5.44	203	64	31	749	72.9	74.8	6	1	0.0	
	2008	72.0	0.80	5.65	234	64	-32	745	72.5	79.5	44	2	1.2	
	2007	15.9	0.74	5.76	230	56	-46	734	70.4	80.7	51	6	4.1	
5.5	2009	8.5	0.93	5.96	161	54	80	726	75.0	77.2	19	3	0.3	
	2008	110.4	0.73	6.03	211	54	-1	735	75.7	82.9	66	9	2.9	
	2007	102.8	0.66	6.14	213	52	-13	726	74.1	83.9	82	7	5.9	

- Collateral characteristics of 2009 vintage 30-year 4s and 4.5s are far superior to their counterparts from 2007-08 vintages (5s and 5.5s).
- In principle, the 2009 vintage increases the rate sensitivity of the mortgage universe.
- However, for call risk to materialize on 4s and 4.5s, mortgage rates need to hit new lows .

Source: NAR, Case-Shiller, FHFA, Credit Suisse

Seasoning of TBA deliverable in 5s and 5.5s should have a minimal impact on valuations

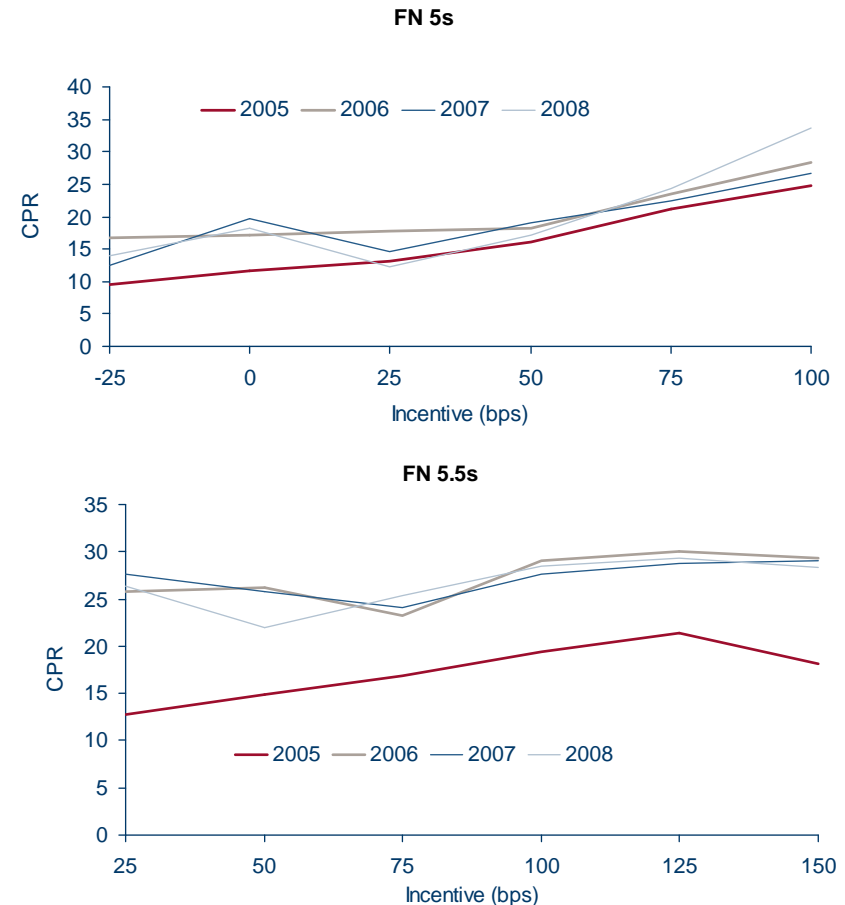
Projected 0-36 WALA Fed Holdings as a Share of 0-36 WALA Float

(\$MM)	5s	5.5s
FED+Tsy Projected Holdings	252,676	182,614
Projected Float	380,386	367,186
Excess Float	127,710	184,572
% of Float owned by Fed+Tsy	66%	50%

Assumption: The US Treasury MBS holdings of 5s and 5.5s consist of > 36 WALA collateral

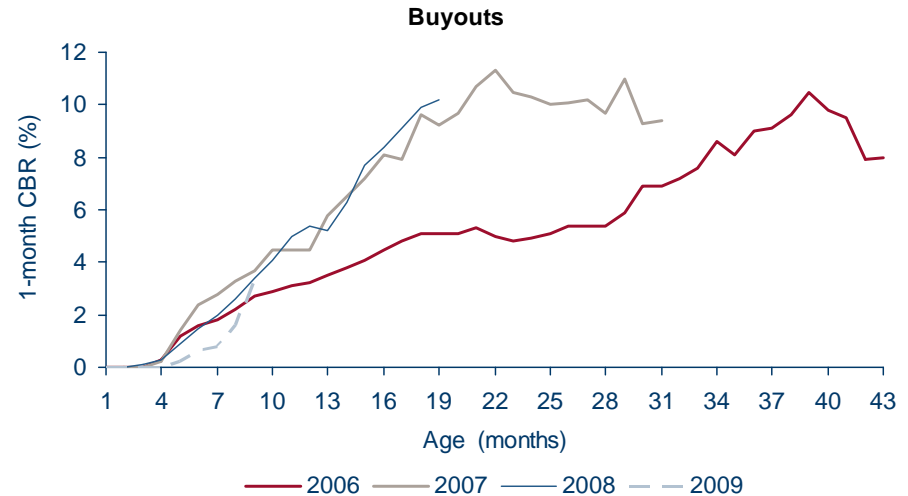
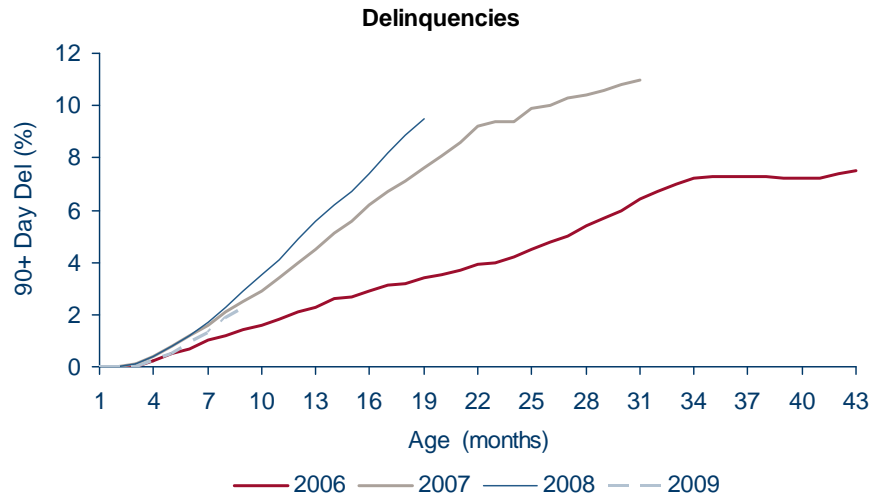
- Based on projected Fed + Tsy holdings by the end of Q1:10, TBA deliverable can become more seasoned if Fed decides not to roll/sell.
- From a valuation standpoint, it should have a meaningful impact only if deliverable becomes 48+ WALA.
- This is unlikely given a significant amount of sub-36 WALA float after accounting for Fed holdings.

S-curves for FN 5s and FN 5.5s based on 2009 prepayments



Source: Federal Reserve, US Treasury, Credit Suisse

GNMA speeds to remain elevated due to high servicer buyouts



- High coupon GNMA speeds will remain elevated due to servicer buyouts given the ongoing ramp-up in delinquencies in 2008 and 2009 vintages.
- A large-scale transition of weaker credit non-Agency borrowers into FHA is an important contributor to poor credit performance of the newer vintages.

Source: Credit Suisse

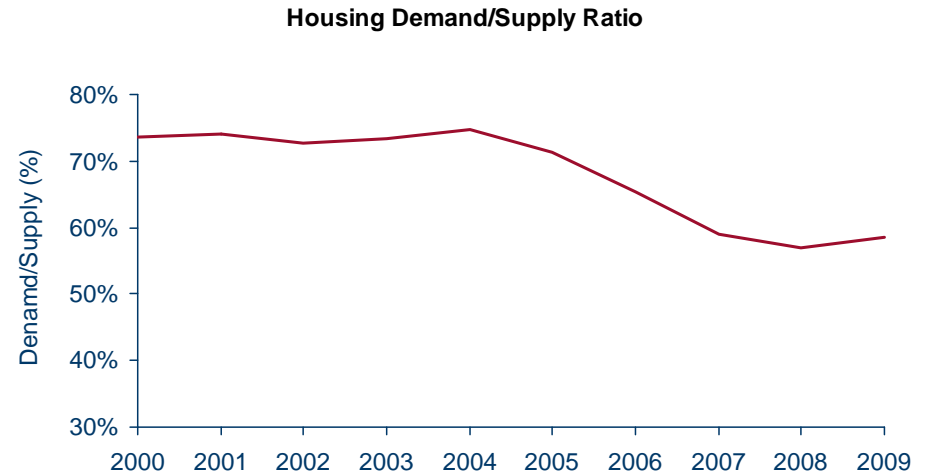
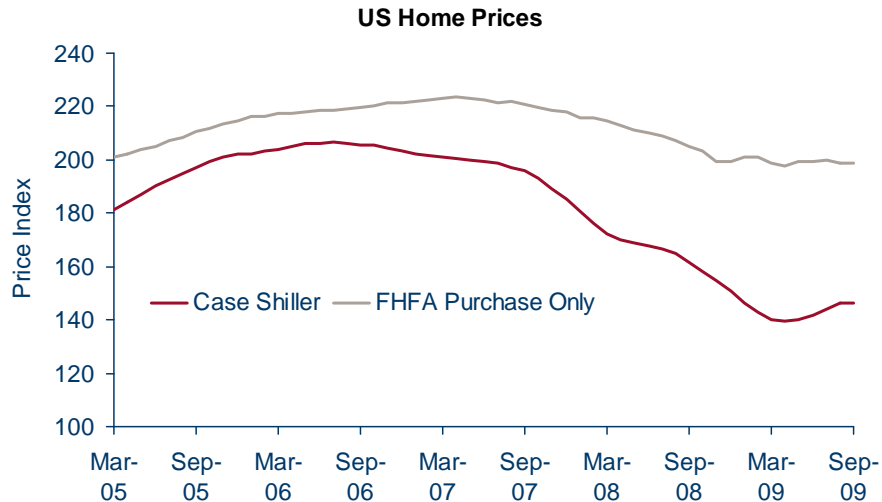
US Housing Market Outlook



US Housing market outlook

- Housing market is showing early signs of stabilization
- The recovery is supported by a decline in foreclosure sales, record high affordability levels, and the homebuyer tax credit
- While delinquencies continue to rise, foreclosures have slowed due to government's foreclosure prevention initiatives
- At this point, housing market has achieved a very tentative sense of balance with a narrow path that could lead to a modest upside vs. significant downside risk if conditions deviate from this path
- Success in preventing a sizable proportion of delinquent properties from foreclosure will be key for a housing recovery in 2010

Are signs of recovery in the US housing market real?

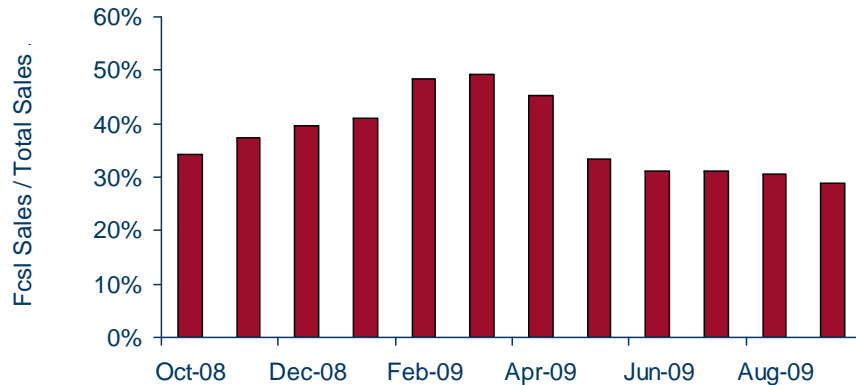


- Improving home prices and demand/supply gap are pointing towards early signs of stabilization in the housing market.

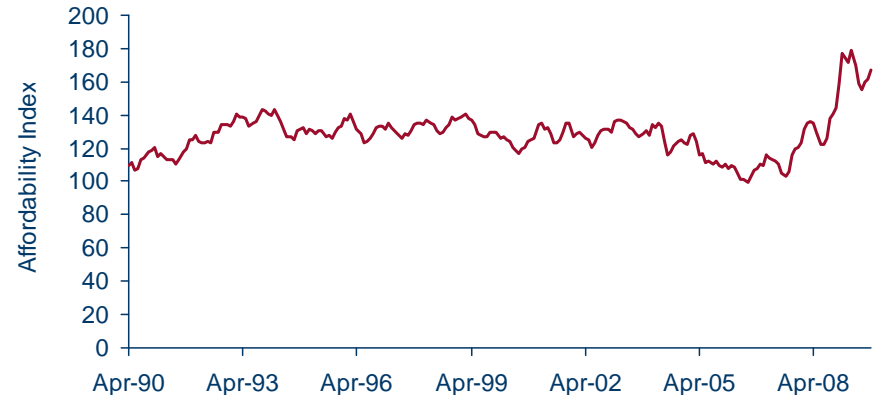
Source: NAR, Case-Shiller, FHFA, Credit Suisse

Decline in foreclosure sales, high affordability levels, and tax benefits are supporting the housing recovery

Share of Foreclosure Sales



Monthly Homebuyer Affordability Index



- Home price stabilization has primarily resulted from decline in share of foreclosure sales.
- Home sales are picking up on the heels of high affordability levels caused by low mortgage rates and home prices and homebuyer tax credit.

Source: NAR, Credit Suisse

Conversion rate on HAMP has been quite low thus far

- Increased government focus on raising conversion rates could lead to an improvement in HAMP statistics in the short term.
- From a longer perspective, one can argue a case of diminishing returns – borrowers who could qualify would have already done so.
- We anticipate multiple rounds of government attempts to achieve foreclosure prevention for those who fall through trial mods by lowering the bar or directing them towards alternative foreclosure prevention programs.

Key HAMP Performance Statistics

Active Trial Mods (as of November end)	728K
Permanent Mods	31K
Expected # of Borrowers to complete trial payments (as of December end)	375K
Success Rate 1:	
% of Borrowers who have made trial payments	58%
Success Rate 2:	
% of Borrowers who made trial payments plus submitted documentation	17%

Source: US Treasury, Credit Suisse

Direction of home prices in 2010 will strongly hinge upon the outcome of the foreclosure prevention initiatives

- Success in preventing a sizable proportion of delinquent properties from foreclosure will be key for a housing recovery in 2010.
- We believe that if share of foreclosure sales falls between 25% and 30%, home prices can increase modestly during 2010.
- For this to happen, we estimate that approximately 3.2 million foreclosures must be prevented in 2010, accounting for 76% of the expected foreclosure pipeline.
- Current performance statistics on HAMP are quite disappointing in the above context. However, multiple rounds of government attempts to achieve foreclosure prevention for those who fall through trial mods are likely to keep volume of foreclosure sales under check.
- At this point, housing market has achieved a very tentative sense of balance with a narrow path that could lead to a modest upside vs. significant downside risk if conditions deviate from this path.

Other risks are more manageable

- Other risks to the housing market include a blowout in mortgage rates (as a result of wider spreads and/or higher base rates) which could adversely affect affordability and hence activity level.
- Purchase activity could slow down after the expiry of home-buyer tax credit in April next year.
- The government has a better control on managing the above risks, in our view. For instance, extension of MBS purchase plan or tax credit could alleviate the above risks should they materialize.

MBS basis/coupon stack/Trust IO

High carry and tight supply/demand has driven the MBS basis to near record tight. Break-evens remain high

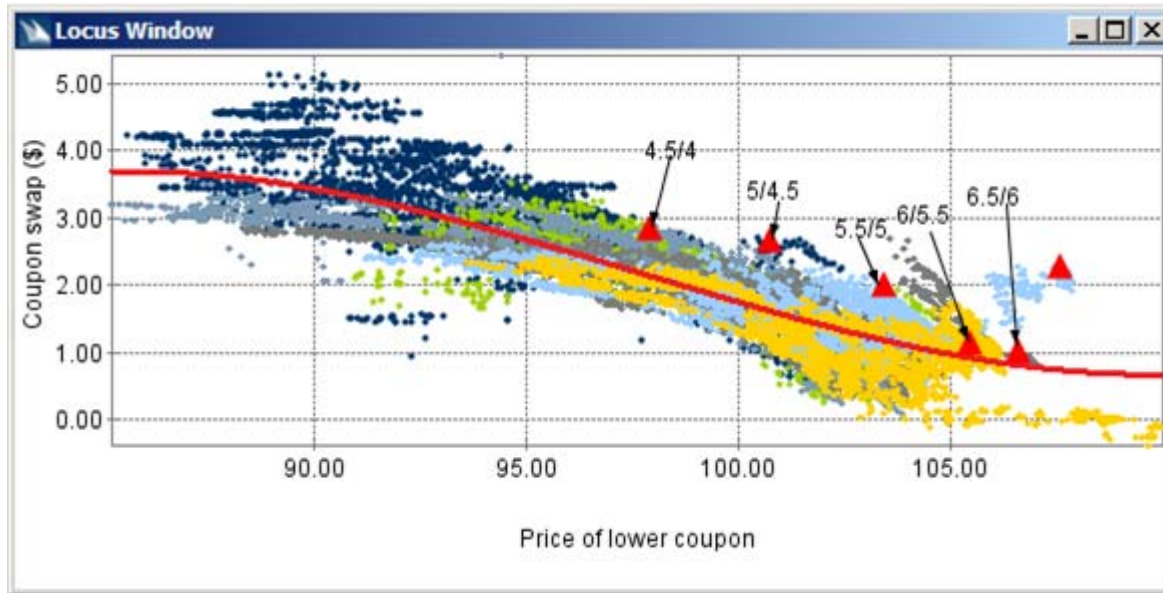
\$ Roll price		B/E basis widening required to compensate for carry (bp)				
		4.00%	4.50%	5.00%	5.50%	6.00%
cheapen <- \$ rolls -> richen (ticks)	3.0	14	20	34	36	39
	2.0	12	18	31	33	36
	1.0	11	16	29	30	32
	0.0	9	14	26	26	28
	-1.0	7	12	23	23	25
	-2.0	6	10	20	20	21
	-3.0	4	8	18	17	18

- Figures are for a three-month holding period. Carry is calculated using trading desk hedge ratios to 10-year swaps. The break-even basis widening is calculated using spread duration for that particular coupon.

- Break-even monthly spread widening on FN 4s and 4.5s are 3 and 5bp, respectively.
- On higher coupons, it is around 9bp.
- Break-evens decline, but remain high even if rolls cheapen substantially.

Source: Credit Suisse

Slow prepay view and mod risk continue to shape coupon swap valuations



- 5.5/5, 5/4.5, and 4.5/4 all appear stretched on a historical basis, but reflect the prevailing low prepayments view.
- 6.5/6 and 6/5.5 are at relatively compressed levels due to perceived modification/buyout risk.
- These will remain tactical trades near term. We favor IO in Trust form.

Source: Credit Suisse

Adding IOs lowers duration risk without reducing carry

Original Portfolio - Carry: 10.8 ticks

Amount	Security	2yr DV01	5yr DV01	10yr DV01	30yr DV01	Prepay				
						Dur DV01	Cvx DV01	CC DV01	Model DV01	Vol DV01
\$100MM	FNCL 4.5	9,483	10,951	13,460	8,484	42,400	-113	-10,809	-5,098	50,984

Portfolio I - Portfolio Dur Reduced by 25% by adding \$15.1MM of Trust IO - Carry: 12.24 ticks

Amount	Security	2yr DV01	5yr DV01	10yr DV01	30yr DV01	Prepay				
						Dur DV01	Cvx DV01	CC DV01	Model DV01	Vol DV01
\$100MM	FNCL 4.5	9,483	10,951	13,460	8,484	42,400	-113	-10,809	-5,098	50,984
\$15.1MM	FNS 400 2	2,525	-1,376	-10,067	-1,541	-10,600	-27	-13,647	17,628	13,040
	Total	12,008	9,576	3,393	6,942	31,800	-140	-24,456	12,529	64,024

Portfolio II - Portfolio Dur Reduced by 50% by adding \$30.1MM of Trust IO - Carry: 13.66 ticks

Amount	Security	2yr DV01	5yr DV01	10yr DV01	30yr DV01	Prepay				
						Dur DV01	Cvx DV01	CC DV01	Model DV01	Vol DV01
\$100MM	FNCL 4.5	9,483	10,951	13,460	8,484	42,400	-113	-10,809	-5,098	50,984
\$30.1MM	FNS 400 2	5,050	-2,751	-20,133	-3,083	-21,200	-55	-27,294	35,255	26,080
	Total	14,533	8,200	-6,673	5,401	21,200	-167	-38,103	30,157	77,065

- Several non-traditional players including money managers, REITs, etc. are adding IO exposure to reduce the duration of their portfolios vs. index and express a negative view on basis without giving up carry.
- Risks include higher exposure to short end of the curve, convexity, and volatility.

Down in coupon Trust IOs offer relative value

Post buyout breakeven price

FNS 371		Delinquency Level		
Price: 17-17		10.0%	12.5%	15.0%
Months to Buyout	1	19.2	19.8	20.4
	2	19.0	19.6	20.2
	3	18.7	19.3	19.9

FNS 370		Delinquency Level		
Price: 19-04		6.0%	8.0%	10.0%
Months to Buyout	1	20.2	20.6	21.1
	2	20.0	20.5	20.9
	3	19.8	20.3	20.8

At above prices, one should be indifferent between the buy now (and hold) versus buy post buyout (sell now and buy post buyout) alternatives. Our estimates are calculated for a range of delinquency levels in line with the estimates for corresponding cohorts and timing of buyouts.

- Post buyout prices on FNS 370 and 371 need to break recent ranges to justify a “buy now/hold” strategy.
- Under the best case scenario, if the buyouts are back loaded, net carry on higher coupon Trust IOs over the one-year period would be 15-20 ticks.
- In comparison, carry on down in coupon Trust IOs could be 70-80 ticks.

STRUCTURED PRODUCTS RESEARCH

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