

## Agency Fixed Rate Prepayment Model Update – Pre Beta V1.32

### Incorporating increases in GSE delivery fees

After the close of business on Thursday, December 19, 2013, we introduced a new Pre Beta agency fixed rate prepayment model on Barclays Live. It can be accessed by setting the “FR Model Version” to Pre Beta (V1.32) in the Preferences tab on the mortgage calculator. The new model incorporates increases in GSE up-front delivery fees made public on Monday December 16, 2013, after the release of Pre Beta (V1.31). It also includes several other incremental adjustments.

- **Increases in GSE delivery fees:** On Monday, December 16, 2013, Fannie Mae and Freddie Mac released details of the delivery fee increases announced by the FHFA on Monday, December 9, 2013.<sup>1</sup> Figure 1 displays the fee increases for non HARP originations by credit score and LTV. There were no fee increases for borrowers with the highest credit scores and lowest LTVs (eg,  $FICO \geq 760$  &  $LTV \leq 75$ ) and only minor or no increases for borrowers with less than prime credit scores (ie,  $FICO < 680$ ). The largest increases were for prime borrowers with  $LTV > 80$  and credit scores below 760. For example, for a borrower with a 739 FICO score and 90 LTV, up-front delivery fees are scheduled to increase 1.25%. This is likely to translate into a 25-30bp higher mortgage rate. One set of borrowers who are likely to be affected by the fee increases are high LTV conventional borrowers who refinanced through the HARP program, such as those backing MHA ( $>80$  LTV), CQ ( $>105$  LTV) and CR ( $>125$  LTV) pools. High FICO FHA borrowers looking to shed (2011 and later vintages) or avoid (post-HARP 2009 and 2010 vintages) high FHA mortgage insurance fees will also be affected. In particular, the LTV at which it becomes economical for some of these borrowers to refinance into a conventional mortgage has been shifted lower by the delivery fee increases.

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<sup>1</sup>FHFA Takes Further Steps to Advance Conservatorship Strategic Plan by Announcing an Increase in Guarantee Fees, Fannie Mae LLPA Matrix and AMDC Information, Fannie Mae Refi Plus LLPA Matrix, Freddie Mac Post-settlement Delivery Fees.

Figure 2 displays the effect of the FHA-to-conventional rate incentive on long-term prepayment projections in Pre Beta (V1.32). For mortgage rates within a 50bp range of current levels (net of scheduled g-fee increases), FHA-to-conventional refinancing adds 1-2 CPR, with the effect concentrated on post-HARP Ginnie Mae MBS with 3-5% coupons. More substantial effects on prepayments would require mortgage rates to fall 100bp or more, a lower probability event now that the Federal Reserve has begun to taper its purchases of Treasuries and MBS. If mortgage rates were to rise 100bp or more, the effect would shrink considerably. FHA-to-conventional refinancing has essentially no effect on the prepayments of higher coupon Ginnie Mae MBS since the FHA borrowers backing most higher coupon cohorts are eligible for a low MIP FHA streamlined refinance (0.1% up-front MI, 0.55% annual MIP) so have little or no incentive to leave the FHA market (this was true even before the increases in GSE delivery fees).

- **Other model changes:** First, we steepened the turnover lock-in function modestly relative to Pre Beta V1.31. This was done to adjust for the fact that the loan size effects added to the turnover model effectively reduce lock-in over the long term as the average loan size of a pool declines. Given the current level of mortgage rates and steepness of the forward curve, changes to turnover and cash-out assumptions, including their rate sensitivity, are increasingly important. There are several knobs in the Preferences tab that allow calculator users to adjust these effects in the model, including “Housing Turnover Mult”, “Turnover Lockin Mult”, “Cashout Mult” and “Cashout Lockin Mult”. We also reduced vintage-specific refinance multipliers on post-HARP 2009 and 2010 collateral. Increases in the refinance multipliers on these vintages, intended to adjust for recent model short falls, caused a noticeable over-prediction in prepayments during the low rate environment of the past year. In an attempt to better align model projections with actual prepayments over a broader range of interest rate environments and to facilitate more realistic HARP expansion experiments when calculator users adjust HARP eligibility dates, we have reverted the multipliers for these vintages back to their values in Pre Beta (V1.30.1).

FIGURE 1

Changes in GSE up-front delivery fees for non-HARP originations by FICO/LTV, excluding NY, NJ, CT & FL

FICO \ LTV	≤ 60	(60,70]	(70,75]	(75,80]	(80,85]	(85,90]	(90,95]
≥ 800	0.00	0.00	0.00	0.00	0.25	0.25	0.25
[780,800)	0.00	0.00	0.00	0.00	0.25	0.25	0.25
[760,780)	0.00	0.00	0.00	0.25	0.50	0.50	0.50
[740,760)	0.00	0.00	0.25	0.25	1.00	1.00	1.00
[720,740)	0.00	0.00	0.50	0.50	0.75	1.25	1.25
[700,720)	0.00	0.00	0.50	0.50	0.75	1.00	1.00
[680,700)	0.00	0.00	0.75	0.50	0.75	1.00	1.00
[660,680)	0.00	0.00	0.00	0.00	0.25	0.25	0.25
[640,660)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
[620,640)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
< 620	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Changes in up-front delivery fees are measured as a percentage of the delivered mortgage balance. Changes apply to mortgages purchased for cash on or after April 1, 2014 and mortgages delivered into MBS pools with issue dates on or after April 1, 2014. For mortgages on properties located in New York, New Jersey, Connecticut and Florida add 0.25 to the numbers in Figure 1.

Source: FNMA, Barclays Research

FIGURE 2

Effect of FHA-to-conventional rate incentive effect on long-term CRR projections, Pre Beta (V1.32)

	Mortgage Rate Shift Scenario (bp)								
	-200	-150	-100	-50	0	50	100	150	200
G2SF 3.0 2013	3.9	4.3	1.7	1.2	0.9	0.6	0.3	0.1	0.2
G2SF 3.5 2012	6.5	6.8	4.4	1.8	1.6	0.9	0.5	0.2	0.2
G2SF 4.0 2011	3.8	4.2	4.4	2.5	1.2	1.4	0.9	0.5	0.2
G2SF 4.5 2010	5.3	6.0	5.6	2.0	1.8	1.5	0.9	0.5	0.3
G2SF 5.0 2010	2.8	3.0	3.3	2.3	0.8	1.5	1.1	0.6	0.4
G2SF 5.5 2008	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
G2SF 6.0 2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G2SF 6.5 2008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: Projections use rates as of December 18, 2013, close. The base case conventional 30-year mortgage rate for that date is 4.58% (increasing to 4.63% in January 2014 and 4.68% in February 2014 to account for the 10bp g-fee increase announced on Monday, December 9, 2013, by the FHFA). The base case FHA mortgage rate is 4.23%. Source: Barclays Research

## Appendix: OAS Effect of Model Changes, Pre Beta V1.31 vs Pre Beta V1.32

FIGURE 1

FN 30Y, Market Rates: NY 3PM Close of Wednesday, December 18, 2013

Pre Beta V1.31										Pre Beta V1.32							Change						
Coupon	Vintage	Price	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life
3.0	TBA	95-11	3.61	46	39	8.0	3.9	5.1	6.2	3.61	41	34	8.2	3.7	4.9	6.0	-0.01	-5	-6	0.2	-0.2	-0.2	-0.2
3.0	2013	95-11	3.63	49	42	7.9	4.8	5.6	6.4	3.62	44	36	8.1	4.6	5.4	6.2	-0.01	-5	-6	0.2	-0.2	-0.2	-0.2
3.0	2012	95-11	3.64	52	45	7.7	5.6	6.0	6.5	3.63	47	39	7.9	5.4	5.7	6.3	-0.01	-5	-6	0.2	-0.2	-0.3	-0.2
3.5	TBA	99-21+	3.54	49	35	7.0	6.9	7.2	7.4	3.54	46	31	7.2	6.8	7.1	7.4	0.00	-3	-4	0.1	-0.1	-0.1	0.0
3.5	2013	99-21+	3.54	47	36	7.5	5.3	6.5	7.6	3.54	44	31	7.7	5.2	6.4	7.4	0.00	-4	-5	0.2	-0.1	-0.1	-0.2
3.5	2012	99-21+	3.54	50	39	7.2	6.9	7.2	7.7	3.54	47	34	7.4	6.8	7.1	7.6	0.00	-4	-5	0.2	-0.1	-0.1	-0.1
3.5	2011	99-21+	3.54	51	38	7.0	7.4	7.5	7.7	3.54	48	34	7.1	7.3	7.4	7.6	0.00	-3	-4	0.2	-0.1	-0.1	-0.1
3.5	2010	99-21+	3.54	56	41	6.6	8.1	8.0	8.1	3.54	53	37	6.9	8.0	7.9	8.0	0.00	-3	-4	0.3	-0.1	-0.1	-0.1
4.0	TBA	103-07	3.45	55	30	6.0	9.5	9.7	9.5	3.45	53	27	6.1	9.5	9.6	9.5	0.00	-1	-3	0.1	0.0	-0.1	0.0
4.0	2013	103-07	3.49	54	32	6.8	5.6	7.6	8.9	3.50	52	29	7.0	5.3	7.4	8.8	0.00	-2	-4	0.2	-0.3	-0.2	-0.1
4.0	2012	103-07	3.44	58	41	6.6	9.5	9.8	9.9	3.45	55	37	6.8	9.3	9.6	9.7	0.00	-3	-5	0.2	-0.2	-0.2	-0.2
4.0	2011	103-07	3.46	57	37	6.3	9.1	9.2	9.2	3.46	55	34	6.5	9.0	9.1	9.2	0.00	-2	-3	0.2	-0.1	-0.1	0.0
4.0	2010	103-07	3.44	59	37	6.0	9.6	9.7	9.6	3.45	57	35	6.3	9.5	9.5	9.4	0.01	-2	-2	0.3	-0.1	-0.2	-0.2
4.0	2009	103-07	3.38	62	30	4.7	12.1	11.7	11.1	3.38	60	28	4.9	11.8	11.5	10.9	0.01	-2	-2	0.2	-0.3	-0.2	-0.2
4.5	TBA	106-05+	3.14	66	25	4.1	15.5	15.4	14.1	3.18	65	26	4.5	14.7	14.6	13.4	0.04	0	1	0.3	-0.8	-0.8	-0.7
4.5	2013	106-09+	3.43	68	41	6.3	6.8	9.2	10.4	3.44	67	37	6.5	6.3	8.9	10.3	0.01	-1	-3	0.2	-0.5	-0.3	-0.1
4.5	2012	106-07+	3.33	66	45	6.1	11.5	11.9	11.7	3.34	66	41	6.3	11.1	11.5	11.6	0.01	-1	-4	0.2	-0.4	-0.4	-0.1
4.5	2011	106-05+	3.37	67	39	5.4	11.3	11.4	11.0	3.39	66	37	5.7	10.9	11.0	10.7	0.02	-1	-2	0.3	-0.4	-0.4	-0.3
4.5	2010	106-05+	3.32	67	36	5.1	12.0	12.0	11.5	3.36	66	36	5.4	11.4	11.4	11.0	0.03	-1	0	0.4	-0.6	-0.6	-0.5
4.5	2009	106-05+	3.27	68	36	4.7	13.0	12.8	12.0	3.29	67	35	5.0	12.6	12.4	11.7	0.02	-1	-1	0.2	-0.4	-0.4	-0.3
5.0	TBA	108-25	2.07	54	-3	1.6	28.9	27.6	24.4	2.07	54	-5	1.7	28.7	27.5	24.3	0.01	0	-2	0.1	-0.2	-0.1	-0.1
5.0	2011	109-09	3.18	67	35	4.9	13.2	13.3	12.5	3.21	68	35	5.2	12.7	12.7	12.2	0.03	1	0	0.3	-0.5	-0.6	-0.3
5.0	2010	109-05	3.13	69	33	4.4	14.1	13.9	13.1	3.19	70	35	4.9	13.2	13.1	12.5	0.06	1	2	0.4	-0.9	-0.8	-0.6
5.0	2009	108-25	3.12	74	36	4.1	15.1	15.0	13.8	3.17	74	37	4.5	14.3	14.2	13.3	0.05	1	1	0.3	-0.8	-0.8	-0.5
5.0	2008	108-25	2.03	53	-4	1.6	29.2	27.9	24.7	2.03	53	-6	1.7	29.1	27.8	24.7	0.00	0	-2	0.1	-0.1	-0.1	0.0
5.0	2004	109-01	2.68	61	21	2.5	20.4	18.6	16.5	2.67	62	19	2.6	20.2	18.6	16.5	0.00	0	-2	0.1	-0.2	0.0	0.0
5.0	2003	109-09	2.77	61	29	3.1	17.4	16.1	14.5	2.76	62	27	3.1	17.3	16.0	14.6	0.00	0	-2	0.1	-0.1	-0.1	0.1
5.5	TBA	109-26	1.23	47	-12	0.8	36.8	34.6	32.6	1.23	47	-13	0.8	36.6	34.6	32.6	0.00	0	-1	0.0	-0.2	0.0	0.0
5.5	2008	109-26	1.62	59	2	1.0	34.5	32.1	29.4	1.65	61	2	1.0	33.9	31.8	29.2	0.03	2	0	0.1	-0.6	-0.3	-0.2
5.5	2007	109-26	1.62	57	3	1.2	33.9	31.4	29.3	1.65	59	3	1.3	33.3	31.1	29.1	0.03	2	0	0.1	-0.6	-0.3	-0.2
5.5	2006	109-26	1.94	65	16	1.6	31.3	28.8	26.5	1.96	67	16	1.6	30.8	28.5	26.3	0.03	2	0	0.1	-0.5	-0.3	-0.2
5.5	2005	109-26	2.61	88	45	2.3	23.5	22.8	20.2	2.63	89	44	2.4	23.1	22.5	20.1	0.02	2	0	0.1	-0.4	-0.3	-0.1
5.5	2004	110-10	2.44	73	29	1.9	25.4	23.3	20.3	2.43	73	28	1.9	25.2	23.2	20.3	0.00	1	-1	0.1	-0.2	-0.1	0.0
5.5	2003	110-10	2.64	78	39	2.2	22.7	20.6	17.9	2.63	78	38	2.2	22.7	20.6	18.1	-0.02	0	-2	0.0	0.0	0.0	0.2
6.0	TBA	110-25	0.86	36	-19	0.5	40.0	37.2	35.9	0.86	36	-19	0.5	39.8	37.2	35.9	0.00	0	-1	0.0	-0.2	0.0	0.0
6.0	2008	110-25	1.68	67	18	1.2	34.5	31.9	29.9	1.71	69	18	1.3	34.2	31.6	29.7	0.02	2	0	0.1	-0.3	-0.3	-0.2
6.0	2007	110-25	1.68	65	18	1.2	34.5	31.8	29.8	1.70	66	18	1.3	34.2	31.5	29.7	0.02	2	0	0.1	-0.3	-0.3	-0.1
6.0	2006	110-25	2.04	79	36	1.6	31.5	28.9	26.9	2.07	81	36	1.7	31.2	28.6	26.7	0.03	2	1	0.1	-0.3	-0.3	-0.2
6.5	TBA	111-08	1.05	47	4	0.6	41.0	37.7	36.2	1.06	48	4	0.6	40.9	37.6	36.1	0.02	1	0	0.0	-0.1	-0.1	-0.1
6.5	2008	111-09	2.26	101	61	1.8	32.2	29.9	27.7	2.28	103	62	1.8	31.8	29.6	27.5	0.03	2	1	0.1	-0.4	-0.3	-0.2
6.5	2007	111-09	2.51	109	75	2.2	29.6	27.7	25.8	2.52	111	76	2.2	29.2	27.4	25.7	0.01	2	1	0.1	-0.4	-0.3	-0.1
6.5	2006	111-09	2.66	116	83	2.3	28.5	26.4	24.4	2.67	118	84	2.3	28.1	26.0	24.3	0.02	2	1	0.1	-0.4	-0.4	-0.1

Source: Barclays Research

FIGURE 2

IOS, Market Rates: NY 3PM Close of Wednesday, December 18, 2013

Pre Beta V1.31										Pre Beta V1.32							Change						
Security	Coupon	Price	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life
IFN-33012 IO	3.0	22-26+	2.84	135	64	0.1	5.6	6.1	6.5	3.07	173	98	-0.4	5.4	5.8	6.3	0.23	39	34	-0.4	-0.2	-0.3	-0.2
IFN-33510 IO	3.5	23-15	2.64	215	80	-7.2	8.4	8.2	8.2	2.73	249	125	-6.5	8.2	8.1	8.1	0.10	35	45	0.7	-0.2	-0.1	-0.1
IFN-33512 IO	3.5	24-23	2.76	207	107	-3.3	7.1	7.4	7.8	2.89	245	141	-3.7	6.9	7.3	7.6	0.13	38	34	-0.5	-0.2	-0.1	-0.2
IFN-34009 IO	4.0	23-09	2.36	333	143	-14.2	11.5	11.0	10.5	2.43	361	175	-14.3	11.4	10.9	10.4	0.07	28	32	-0.1	-0.1	-0.1	-0.1
IFN-34010 IO	4.0	24-26+	1.95	289	123	-10.9	10.5	10.5	10.2	2.28	322	177	-9.4	10.2	10.1	9.9	0.33	33	54	1.5	-0.3	-0.4	-0.3
IFN-34011 IO	4.0	25-23	2.12	270	124	-8.8	9.7	9.9	9.7	2.23	303	161	-8.8	9.6	9.7	9.6	0.11	33	37	0.1	-0.1	-0.2	-0.1
IFN-34509 IO	4.5	22-28+	1.94	488	266	-19.0	15.4	14.8	13.4	2.24	515	307	-18.4	15.1	14.5	13.1	0.30	27	41	0.7	-0.3	-0.3	-0.3
IFN-34510 IO	4.5	24-13	1.70	416	237	-14.5	13.8	13.7	12.7	2.47	453	305	-12.1	12.9	12.8	12.1	0.77	38	68	2.4	-0.9	-0.9	-0.6
IFN-34511 IO	4.5	26-15	1.18	295	142	-12.2	12.8	12.8	12.0	1.59	329	192	-11.1	12.2	12.2	11.7	0.40	34	50	1.1	-0.6	-0.6	-0.3
IFN-35003 IO	5.0	22-06+	0.70	258	111	-18.1	18.9	17.2	15.3	0.59	262	128	-18.6	18.9	17.2	15.4	-0.11	4	16	-0.5	0.0	0.0	0.1
IFN-35005 IO	5.0	21-30+	-2.78	240	25	-27.0	24.1	22.7	19.8	-2.74	257	54	-27.3	23.9	22.5	19.7	0.03	16	29	-0.4	-0.2	-0.2	-0.1
IFN-35008 IO	5.0	20-00+	-5.21	373	117	-34.7	30.2	28.1	24.9	-5.18	387	143	-34.9	30.0	28.0	24.9	0.03	15	26	-0.2	-0.2	-0.1	0.0
IFN-35009 IO	5.0	21-22+	3.39	673	505	-16.8	17.6	17.0	15.3	4.10	709	568	-15.2	16.7	16.2	14.7	0.72	36	63	1.6	-0.9	-0.8	-0.6
IFN-35010 IO	5.0	23-21	3.28	562	428	-12.9	15.3	15.1	13.9	4.13	600	500	-10.6	14.1	14.0	13.2	0.85	38	72	2.3	-1.2	-1.1	-0.7
IFN-35503 IO	5.5	19-20+	2.06	595	439	-21.5	24.3	21.9	19.2	1.78	575	437	-22.0	24.4	22.0	19.4	-0.28	-21	-2	-0.5	0.1	0.1	0.2
IFN-35505 IO	5.5	20-17+	0.17	526	366	-22.3	24.9	23.2	20.6	0.19	536	391	-22.6	24.6	23.0	20.6	0.02	9	26	-0.3	-0.3	-0.2	0.0
IFN-35508 IO	5.5	18-18	-5.06	493	313	-33.1	34.1	31.5	28.7	-4.92	511	344	-33.3	33.7	31.3	28.5	0.14	19	32	-0.2	-0.4	-0.2	-0.2
IFN-36008 IO	6.0	18-27+	-5.38	349	270	-28.2	36.0	33.0	30.6	-5.28	361	299	-28.5	35.7	32.8	30.5	0.10	13	29	-0.3	-0.3	-0.2	-0.1
IFN-36567 IO	6.5	20-20	-2.20	318	294	-18.2	31.7	29.3	27.2	-2.27	316	310	-18.5	31.4	29.1	27.2	-0.07	-2	16	-0.3	-0.3	-0.2	0.0
IG2-34010 IO	4.0	24-09+	2.36	254	133	-7.0	11.0	11.2	10.1	1.98	302	176	-6.2	10.2	10.5	10.5	-0.38	48	42	0.8	-0.8	-0.7	0.4
IG2-34510 IO	4.5	23-09+	3.86	469	337	-9.6	13.5	13.2	11.5	3.29	511	377	-9.0	12.7	12.8	12.2	-0.58	42	40	0.6	-0.8	-0.4	0.7
IG2-35010 IO	5.0	23-17+	5.65	622	515	-8.1	14.3	13.7	11.7	4.62	633	524	-8.4	13.7	13.7	12.8	-1.03	11	8	-0.3	-0.6	0.0	1.1

Source: Barclays Research

FIGURE 3

FN 15Y, Market Rates: NY 3PM Close of Wednesday, December 18, 2013

Pre Beta V1.31										Pre Beta V1.32							Change						
Coupon	Vintage	Price	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life
2.5	TBA	99-03+	2.66	21	16	5.5	4.9	6.7	7.4	2.66	18	12	5.6	4.8	6.5	7.2	0.00	-3	-3	0.1	-0.1	-0.2	-0.2
2.5	2013	99-03+	2.66	25	20	5.3	5.7	7.0	7.6	2.66	22	16	5.4	5.6	6.9	7.3	0.00	-3	-3	0.1	-0.1	-0.1	-0.3
2.5	2012	99-03+	2.67	34	28	5.0	7.0	7.8	8.0	2.67	31	25	5.1	6.9	7.6	7.8	0.00	-3	-3	0.1	-0.1	-0.2	-0.2
3.0	TBA	102-06	2.44	29	19	4.3	9.9	10.1	9.9	2.44	28	17	4.4	9.9	10.1	9.8	0.00	-1	-2	0.1	0.0	0.0	-0.1
3.0	2013	102-06	2.52	16	7	5.2	6.2	8.1	8.5	2.52	14	4	5.2	6.1	7.9	8.3	0.00	-2	-3	0.1	-0.1	-0.2	-0.2
3.0	2012	102-06	2.47	25	17	4.7	8.9	9.3	9.3	2.48	24	15	4.7	8.6	9.1	9.0	0.01	-2	-2	0.1	-0.3	-0.2	-0.3
3.0	2011	102-06	2.44	30	21	4.4	9.7	9.9	9.7	2.45	28	19	4.5	9.6	9.7	9.5	0.00	-2	-2	0.1	-0.1	-0.2	-0.2
3.5	TBA	104-21	2.16	29	15	3.5	14.0	13.5	12.8	2.17	28	14	3.5	13.9	13.3	12.6	0.01	-1	-1	0.0	-0.1	-0.2	-0.2
3.5	2012	104-25	2.34	22	13	4.5	9.6	10.0	9.9	2.36	21	12	4.6	9.3	9.6	9.6	0.01	-1	-1	0.1	-0.3	-0.4	-0.3
3.5	2011	104-21	2.29	27	16	4.1	11.4	11.2	10.9	2.30	26	15	4.1	11.1	10.9	10.6	0.01	-1	-1	0.1	-0.3	-0.3	-0.3
3.5	2010	104-21	2.21	30	18	3.7	12.4	11.9	11.5	2.23	29	18	3.8	12.1	11.6	11.2	0.01	0	-1	0.1	-0.3	-0.3	-0.3
4.0	TBA	106-09	2.01	38	25	2.9	15.7	14.5	14.0	2.02	39	25	3.0	15.4	14.2	13.7	0.02	0	0	0.0	-0.3	-0.3	-0.3
4.0	2011	106-09	2.32	38	26	3.8	12.3	12.1	11.7	2.33	39	26	3.9	12.0	11.8	11.4	0.02	0	0	0.1	-0.3	-0.3	-0.3
4.0	2010	106-09	2.20	39	27	3.4	13.3	12.8	12.4	2.22	40	27	3.5	13.0	12.5	12.1	0.02	0	0	0.1	-0.3	-0.3	-0.3
4.0	2009	106-09	2.06	40	27	3.1	14.3	13.6	13.1	2.08	40	27	3.1	14.0	13.2	12.8	0.02	1	0	0.0	-0.3	-0.4	-0.3
4.5	TBA	106-21	2.36	75	62	2.9	15.5	14.7	14.2	2.38	76	62	2.9	15.2	14.4	13.9	0.02	1	0	0.0	-0.3	-0.3	-0.3
4.5	2010	106-21	2.54	78	65	3.3	13.8	13.2	12.8	2.56	78	65	3.4	13.5	12.9	12.5	0.02	1	0	0.0	-0.3	-0.3	-0.3
4.5	2009	106-21	2.41	77	65	3.0	14.6	13.8	13.3	2.43	78	65	3.1	14.2	13.5	13.1	0.02	1	0	0.0	-0.4	-0.3	-0.2

Source: Barclays Research

FIGURE 4

GN2 30Y, Market Rates: NY 3PM Close of Wednesday, December 18, 2013

Pre Beta V1.31										Pre Beta V1.32							Change						
Coupon	Vintage	Price	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life
3.0	TBA	96-24	3.48	40	33	7.3	5.4	7.2	7.7	3.48	36	27	7.5	5.2	6.9	7.9	0.00	-4	-5	0.1	-0.2	-0.3	0.2
3.0	2013	96-24	3.49	42	34	7.2	6.1	7.5	7.8	3.49	38	29	7.4	5.8	7.1	8.0	0.00	-4	-5	0.2	-0.3	-0.4	0.2
3.0	2012	96-24+	3.50	44	36	7.1	7.5	8.4	8.2	3.50	40	30	7.3	7.1	7.9	8.5	0.00	-4	-5	0.2	-0.4	-0.5	0.3
3.5	TBA	101-04	3.31	36	21	6.4	9.5	10.0	9.4	3.30	34	16	6.6	9.0	9.5	9.9	0.00	-2	-4	0.1	-0.5	-0.5	0.5
3.5	2013	101-04	3.32	33	21	6.8	7.2	8.5	8.6	3.32	31	17	6.9	7.1	8.2	9.0	0.00	-2	-4	0.1	-0.1	-0.3	0.4
3.5	2012	101-04	3.31	36	21	6.5	9.5	10.1	9.4	3.30	34	17	6.6	9.0	9.5	9.9	0.00	-2	-4	0.1	-0.5	-0.6	0.5
3.5	2011	101-04	3.30	37	20	6.3	11.0	11.3	10.0	3.29	36	16	6.4	10.4	10.9	10.7	-0.01	-2	-4	0.1	-0.6	-0.4	0.7
4.0	TBA	104-13+	3.20	39	16	5.7	12.4	12.6	10.8	3.16	39	12	5.8	12.0	12.1	11.8	-0.04	0	-3	0.1	-0.4	-0.5	1.0
4.0	2012	104-13+	3.24	37	19	6.2	12.3	11.6	9.9	3.20	36	15	6.2	11.9	11.2	10.9	-0.04	0	-4	0.0	-0.4	-0.4	1.0
4.0	2011	104-13+	3.20	39	16	5.7	12.3	12.5	10.7	3.16	39	13	5.8	11.9	12.1	11.7	-0.04	0	-3	0.1	-0.4	-0.4	1.0
4.0	2010	104-15	3.21	41	21	5.7	11.4	11.5	10.3	3.19	40	19	5.9	10.4	10.8	10.7	-0.02	-1	-2	0.2	-1.0	-0.7	0.4
4.5	TBA	107-08+	3.15	46	18	5.2	13.5	13.6	11.4	3.08	47	15	5.3	13.0	13.2	12.4	-0.07	1	-3	0.1	-0.5	-0.4	1.0
4.5	2011	107-08+	3.14	46	18	5.2	13.7	13.7	11.5	3.07	47	15	5.3	13.1	13.3	12.5	-0.06	1	-3	0.1	-0.6	-0.4	1.0
4.5	2010	107-14+	3.12	45	19	5.1	13.1	12.8	11.2	3.07	46	18	5.3	12.3	12.5	11.9	-0.05	1	-1	0.2	-0.8	-0.3	0.7
4.5	2009	107-10+	3.13	47	24	5.1	13.4	12.6	11.1	3.06	48	22	5.2	13.0	12.9	12.2	-0.07	0	-2	0.1	-0.4	0.3	1.1
5.0	TBA	108-30	2.69	54	20	3.7	22.8	20.9	17.8	2.49	51	12	3.5	23.3	22.2	19.9	-0.20	-3	-8	-0.2	0.5	1.3	2.1
5.0	2010	109-24	3.17	56	30	4.9	14.1	13.4	11.5	3.06	57	27	4.9	13.6	13.5	12.7	-0.11	1	-3	0.0	-0.5	0.1	1.2
5.0	2009	109-10	3.21	62	38	4.9	14.9	13.6	11.7	3.08	62	33	4.8	14.7	14.3	13.2	-0.13	0	-5	-0.1	-0.2	0.7	1.5
5.5	TBA	110-15	2.09	49	8	2.5	28.4	26.7	23.7	1.93	44	0	2.4	28.7	27.5	25.1	-0.16	-5	-7	-0.1	0.3	0.8	1.4
6.0	TBA	112-03	2.08	51	17	2.7	27.9	26.6	23.8	1.87	43	7	2.6	28.3	27.4	25.4	-0.21	-9	-10	-0.1	0.4	0.8	1.6
6.5	TBA	112-31	2.44	76	47	2.9	26.5	25.1	22.8	2.17	63	34	2.8	27.0	26.2	24.7	-0.27	-13	-13	-0.2	0.5	1.1	1.9

Source: Barclays Research

FIGURE 5

GN30Y, Market Rates: NY 3PM Close of Wednesday, December 18, 2013

Pre Beta V1.31										Pre Beta V1.32							Change						
Coupon	Vintage	Price	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	1-Yr	3-Yr	Life
3.0	TBA	96-22	3.50	42	34	7.3	4.9	7.0	7.8	3.50	38	28	7.5	4.8	6.7	8.1	0.00	-4	-5	0.2	-0.1	-0.3	0.3
3.0	2013	96-22	3.51	43	34	7.2	6.4	7.9	8.1	3.52	39	29	7.4	6.0	7.5	8.4	0.01	-4	-5	0.2	-0.4	-0.4	0.3
3.0	2012	96-22+	3.52	43	35	7.2	7.7	8.5	8.2	3.52	40	30	7.3	7.2	8.1	8.5	0.01	-4	-5	0.2	-0.5	-0.4	0.3
3.5	TBA	100-31+	3.33	39	22	6.3	10.5	11.2	10.1	3.32	37	18	6.5	10.0	10.6	10.8	-0.01	-2	-4	0.1	-0.5	-0.6	0.7
3.5	2013	100-31+	3.35	35	23	6.9	6.7	8.4	8.5	3.35	33	19	7.1	6.5	8.0	9.0	0.00	-2	-4	0.1	-0.2	-0.4	0.5
3.5	2012	100-31+	3.34	38	22	6.5	10.3	10.9	9.7	3.33	36	18	6.6	9.8	10.4	10.4	-0.01	-2	-4	0.1	-0.5	-0.5	0.7
3.5	2011	100-31+	3.33	40	23	6.3	11.5	11.8	10.3	3.32	39	19	6.4	11.0	11.3	11.1	-0.01	-1	-4	0.1	-0.5	-0.5	0.8
4.0	TBA	104-07	3.18	44	17	5.4	13.9	14.3	12.3	3.14	45	14	5.5	13.2	13.7	13.2	-0.04	0	-3	0.1	-0.7	-0.6	0.9
4.0	2012	104-07	3.26	41	21	6.1	12.5	12.5	10.5	3.21	41	17	6.1	12.1	12.0	11.7	-0.04	0	-4	0.0	-0.4	-0.5	1.2
4.0	2011	104-07	3.22	43	18	5.6	13.1	13.4	11.3	3.18	44	15	5.7	12.6	12.9	12.3	-0.04	0	-3	0.1	-0.5	-0.5	1.0
4.0	2010	104-07	3.25	45	25	5.7	11.7	11.7	10.4	3.24	44	23	6.0	10.7	11.0	10.9	-0.02	-1	-2	0.2	-1.0	-0.7	0.5
4.5	TBA	106-29+	2.87	49	18	4.1	20.2	18.4	15.7	2.73	49	12	4.0	20.6	19.6	17.5	-0.13	0	-6	-0.1	0.4	1.2	1.8
4.5	2011	106-29+	3.19	51	22	5.3	14.5	14.4	11.7	3.13	52	19	5.4	13.6	13.8	12.8	-0.06	1	-3	0.1	-0.9	-0.6	1.1
4.5	2010	107-02	3.17	51	25	5.1	13.5	13.2	11.5	3.14	52	24	5.3	12.8	12.8	12.1	-0.04	1	-1	0.2	-0.7	-0.4	0.6
4.5	2009	106-31	3.22	54	33	5.3	13.4	12.3	10.8	3.14	53	29	5.3	13.3	12.9	12.1	-0.08	0	-4	0.0	-0.1	0.6	1.3
5.0	TBA	108-30	2.60	52	17	3.5	23.9	21.8	18.7	2.39	49	8	3.3	24.4	23.2	21.0	-0.22	-3	-9	-0.2	0.5	1.4	2.3
5.0	2010	109-24	3.21	56	33	5.2	14.6	13.3	11.1	3.07	56	27	5.1	14.2	13.7	12.7	-0.14	0	-6	-0.1	-0.4	0.4	1.6
5.0	2009	109-11	3.20	61	39	4.9	15.7	13.9	11.8	3.04	60	32	4.7	15.7	14.9	13.7	-0.17	-1	-7	-0.2	0.0	1.0	1.9
5.5	TBA	110-10	1.81	42	-3	2.0	31.2	29.4	26.5	1.65	37	-10	2.0	31.5	30.1	27.8	-0.16	-5	-7	-0.1	0.3	0.7	1.3
6.0	TBA	111-30	1.52	29	-8	2.0	32.4	30.9	28.2	1.31	19	-18	1.9	32.8	31.7	29.7	-0.21	-10	-10	-0.1	0.4	0.8	1.5
6.5	TBA	112-27	2.33	68	42	2.9	27.6	26.1	23.8	2.03	54	28	2.7	28.1	27.4	26.0	-0.30	-15	-15	-0.2	0.5	1.3	2.2

Source: Barclays Research

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