Pre Beta V1.36

Steven Bergantino
+1 212 412 2164
steven.bergantino@barclays.com

Nicholas Strand
+1 212 412 2057
nicholas.strand@barclays.com

William Sarrett
+1 212 412 1327
William.Sarrett@barcap.com

Zhengao Huang
+1 212 412 7949
zhengao.huang@barclays.com

After the close of business on Friday, October 24, 2014, we will introduce a new Pre Beta agency fixed rate prepayment model on Barclays Live. The new model can be accessed by setting the "FR Model Version" to Pre Beta (V1.36) in the Preferences tab on the mortgage calculator.

We summarize the key changes in the latest model release:

- **Updated Conventional and GNMA models:** The latest model release builds on the previous model version V1.35. The primary changes in model version V1.36 include lower pre-HARP prepayments, an increased effect of loan size on turnover lock-in, the introduction of a curtailment function for 10-/15-/20-year collateral, an increase in voluntary prepayments and a reduction in default rates on post-HARP high LTV collateral, increased prepayments for newer production VA collateral, and higher buyout rates for delinquent GNMA loans.

- **New model for M/H/R pools:** In response to the increase in securitization of re-instated and reperforming modified loans, we have developed a new model to capture the unique convexity profile of these loans. The new model supports Freddie Mac's fixed rate modified PCs (M pools) step-up rate modified PCs (H pools), and re-instated PCs (R pools). One of the key changes for this model has been utilizing new disclosures for modified and reinstated loans to effectively forecast re-default rates. The model utilizes payment reduction, time since re-instatement/modification, and delinquency status at modification as new variables to estimate CDRs.

- **Non-Agency OAS:** For select non-agency deals we will now allow users the option of running bonds though the Agency OAS calculator. Valuations for senior bonds off recent non-Agency 2.0 deals exhibit greater dependence on voluntary prepayments than defaults because of their pristine credit and high levels of subordination. Utilizing the OAS framework for these securities allows users to compare the cost of convexity with agency MBS and other convexity products. The calculator utilizes a knobbed version of the agency model, similar to the CK model when running OAS analytics on non-agency securities.

Updates to the Conventional and GNMA model

As part of the release of model version V1.36, we are adjusting model projections based on prepayment data received since the last model update, V1.35. In addition, we are making selected improvements to the structure of the agency prepayment model where needed. While the latest model release contains many small adjustments relative to the previous version, we summarize the most significant changes in this latest model update in the sections below. A full breakdown of model projections and their OAS impact can be found in the Appendix.

Lower pre-HARP prepayments

Since our last model release, we have continued to observe deterioration in pre-HARP prepayments. As we show in Figure 1, after controlling for incentive, pre-HARP prepayments have fallen 7-15 CPR over the past year. The latest slowdown reflects a trend of continued burnout on pre-HARP pools as servicers have repeatedly solicited borrowers to refinance and are steadily receiving diminished response rates. While the near-term outlook for pre-HARP prepayments could stabilize due to the FHFA borrower outreach program, the longer-term trend looks to be dominated by continued burnout.

To fit this trend better, we have reduced the HARP efficiency effect for refinance-related prepayments on pre-HARP cohorts. This change brings projected prepayments more in line with observed levels (Figure 2).

Increased effect of loan size on turnover lock-in

During the past few discount episodes, we have observed faster deep discount prepayments on low loan balance collateral relative to higher balance collateral. For example, if we look at deep discount prepayments (greater than 100bp OTM) in Dec 99-Dec 00 or Oct 13-Sep 14, we observe that speeds for lower loan balance collateral have consistently prepaid faster than the generic cohort (Figure 3). At the same time we see that for speeds marginally out of the money, higher loan balance loans are similar or faster. That is, low loan balance collateral tends to have a flatter lock-in profile than the overall cohort, whereas large loan balance collateral tends to have a steeper lock-in profile.

This reflects the fact that the cost, in terms of higher monthly payments, incurred by borrowers who give up a below-market mortgage rate to move is proportionally higher for borrowers with larger outstanding loan balances.

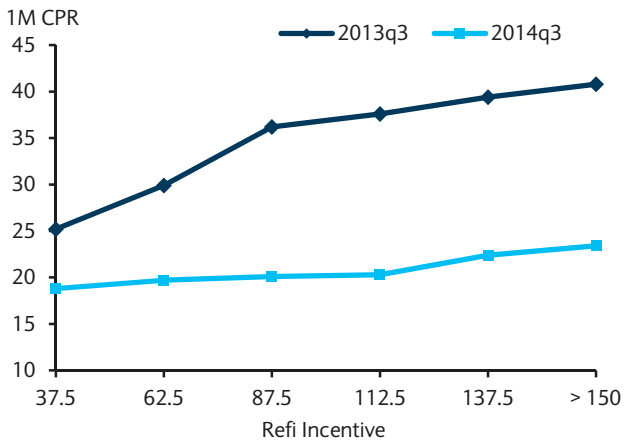
To capture this effect better, we have increased the effect of loan size on the turnover lock-in function (Figure 4). The effect is two-fold: smaller balance loans experience less overall lock in and also become locked in at a slower rate than larger balance loans.

Adjustments to CRRs and CDRs on high LTV collateral

The latest version of the model also makes some adjustments to the CRRs and CDRs for post-HARP pools with high updated LTVs (eg, Fannie CQ & CR pools and Freddie U6 and U9 pools). While version V1.35 does a reasonably good job projecting overall prepayment rates, it has tended to under-project voluntary prepayments and over-project buyouts. Moreover, this pattern of model errors has occurred on low coupon cohorts with little refinance incentive and higher coupon cohorts. To capture the prepayments of low coupon high LTV collateral better, we have reduced the effect of LTV on turnover. To fit prepayments on higher coupon collateral better, we have lowered the effect of burnout on high LTV post-HARP collateral and reduced the effect of the LTV refinance multiplier for post-HARP collateral with updated LTV greater than 80. Finally, we have lowered CDRs on high LTV collateral to bring model projections more in line with empirical data.

FIGURE 1

Pre-HARP speeds continue to fall



Source: 1010 data, Barclays Research

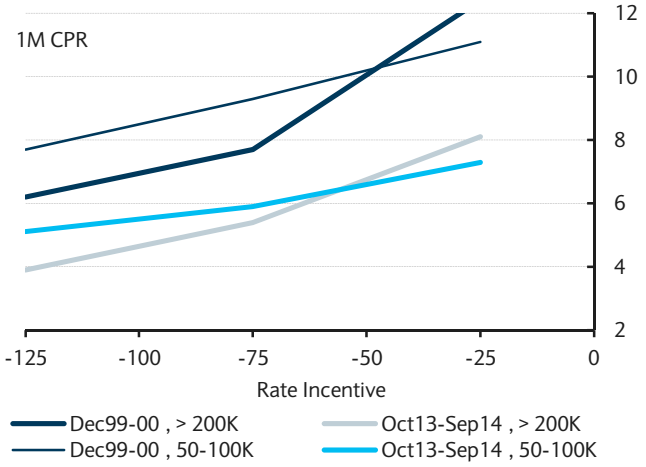
FIGURE 2

Pre-HARP projections V1.36 versus V1.35

		Actual	Model V1.35		Model V1.36	
Cpn	Vintage	6M	6M proj.	Error	6M proj.	Error
5.0	2008	25.2	30.4	5.2	25.6	0.4
	2007	24.1	27.7	3.6	24.8	0.7
	2006	22.1	25.4	3.2	22.9	0.8
5.5	2008	27.5	32.7	5.2	27.5	0.0
	2007	27.9	32.0	4.1	28.2	0.3
	2006	26.7	30.2	3.5	26.8	0.1
6.0	2008	27.6	33.3	5.8	28.0	0.4
	2007	28.4	33.0	4.6	29.0	0.6
	2006	26.1	31.1	5.0	27.4	1.3

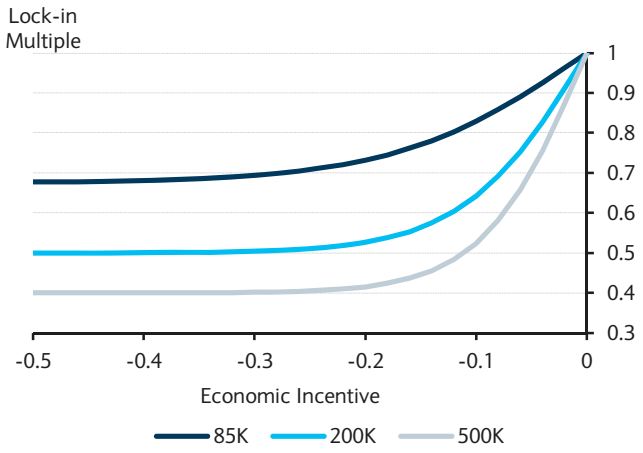
Note: The chart shows data from May through October prepay reports.
Source: Barclays Research

FIGURE 3
Historically, high balance loans have shown greater lock-in



Note: FNMA pool level data from Dec 99-Dec 00 and Oct 13-Sep 14.
Source: 1010 data, Barclays Research

FIGURE 4
Model lock-in effect by loan size



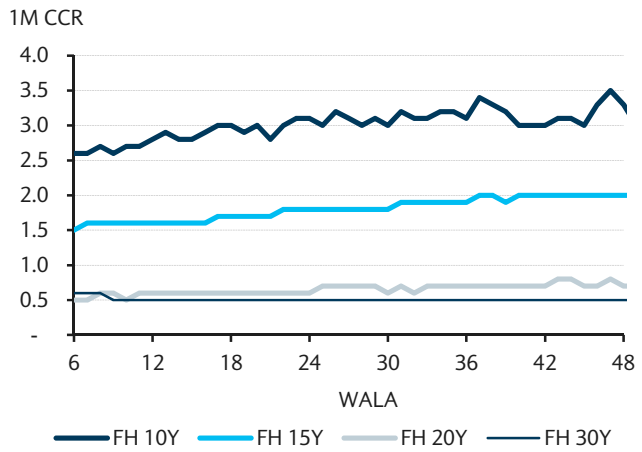
Source: Barclays Research

Addition of a curtailment function for short amortization collateral

For shorter amortization collateral, a significant amount of prepayments come as a result of borrowers curtailing their mortgage in order to build equity in their homes at a faster rate. One can empirically see this effect in Freddie Mac loan level data. Within these data, we can isolate loans that have made partial prepayments and measure a CCR, or a conditional curtailment rate. Figure 5 shows that curtailment rates tend to be highest in shorter-term products such as 10y and 15y collateral and more seasoned collateral.[1] Intuitively, this makes sense, as these borrowers have chosen a product with a higher monthly payment and faster amortization profile than a standard 30 year mortgage.

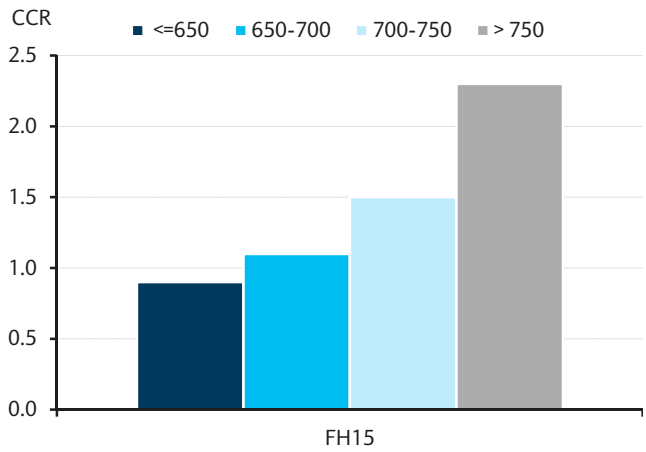
In this latest model, we add a new curtailment function that captures this effect for shorter amortization products (10y, 15y, and 20y collateral). We model the base case curtailments as a function of remaining term and make adjustments to the base curtailment rate based on certain collateral characteristics that influence curtailments. Empirically, we have

FIGURE 5
Curtailment rates depend on product type, seasoning



Note: Loan level curtailment rates calculated from Freddie Mac loan level data from Feb-06 through Oct-14. Source: 1010 data, Barclays Research

FIGURE 6
Curtailment rates highest for financially strong borrowers



Note: Loan level curtailment rates as of the September prepayment report for 36-60 WALA 15y Freddie Mac loans. Source: 1010 data, Barclays Research

[1] This methodology for estimating curtailments underestimates the true level, as it does not measure full payoffs unrelated to housing turnover but only partial prepayments. For highly seasoned collateral nearing maturity, curtailment-related full payoffs may very well represent the largest share of overall prepayments.

observed that borrowers with high FICO scores, lower loan sizes, and lower LTVs tend to curtail at a faster rate (Figure 6), effects that are captured in the model. The curtailment function is added as a separate subcomponent to the overall prepayment model, the others being the refinancing, turnover, cash out, and buyout models. Accordingly, we are adding an additional model knob to the Preferences tab that allows users to adjust the model curtailment function.

Higher VA prepayments for recent originations

One interesting aspect of GNMA prepayments has been the very robust VA speeds for new originations. For example, Figure 7 shows FHA and VA prepayments for G2 4s of 2013. The chart shows that low WALA VA speeds have been very high compared with those on FHA mortgages, despite having a fairly small economic incentive. One driving factor of this differential is the widening gulf between new production FHA and VA loan sizes. New production VA loans have an average loan size of 225K, versus 170K for FHA. Loan-level data show that a strong VA TPO effect is also at play. Figure 8 shows speeds by loan size for FHA and VA loans for both retail and TPO. For VA borrowers there is a marked difference in the refi response for TPO loans versus retail. Furthermore, this effect is stronger for higher loan sizes, which is characteristic of the interaction between loan size and TPO.

Since TPO data are not fully populated for many GNMA pools, model V1.36 incorporates this effect into the model as a WALA dependent VA effect. For pools with WALA less than 24, the model amplifies the refinancing response to reflect the outsized TPO effect observed in VA loans.

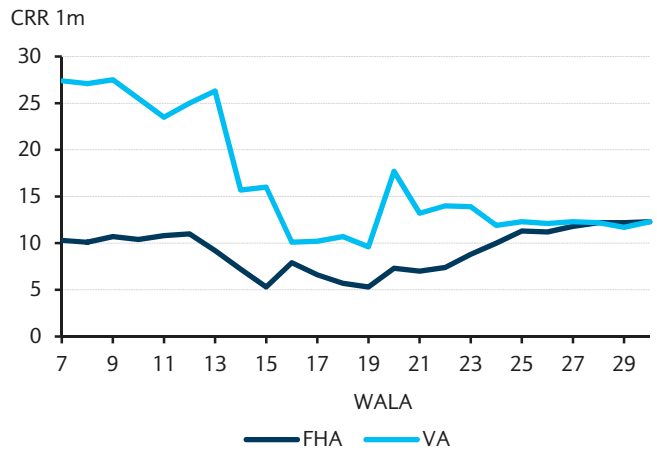
Increases in the GNMA buyout rate

Earlier this year, in APM 2014-06[2], GNMA provided additional clarity surrounding its buyout policy for delinquent loans. Previously, the existing policy stated that a borrower must miss three consecutive payments to be eligible for repurchase from a GNMA pool. Under the clarified policy, GNMA allows any 90+ day delinquent loans to be repurchased from GNMA pools.

Following this change in May, there was a notable change in the buyout rate for 90+ day delinquent loans in GNMA pools. As Figures 9 and 10 show, GNMA buyouts have increased and buyout rates for FHA loans surged from 20% to 30% following the clarification. We expect buyout rates to remain elevated due to the new buyout policy, and subsequently have revised our GNMA model buyout rate to reflect these changes.

FIGURE 7

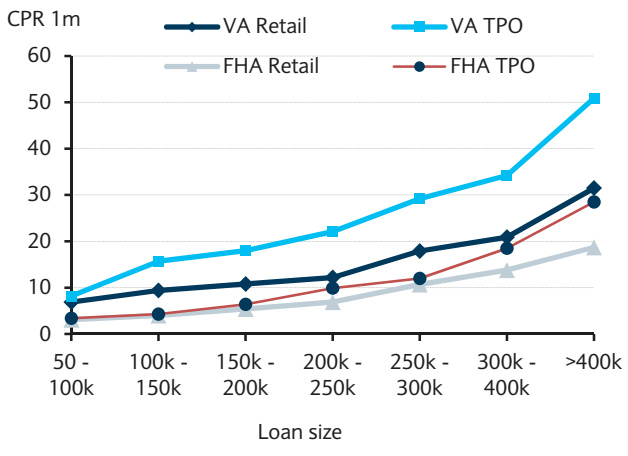
VA speeds on recent cohorts have surprised to the upside



Note: Speeds from the June through October prepayment reports.
Source: 1010 data, Barclays Research

FIGURE 8

The interaction of TPO and loan size appears to be the cause



Note: Speeds on 2013 4s from the June through October prepayment reports.
Source: 1010 data, Barclays Research

[2]http://www.ginniemae.gov/doing_business_with_ginniemae/issuer_resources/Pages/mbsguideapmslibdisppage.aspx?ParamID=29

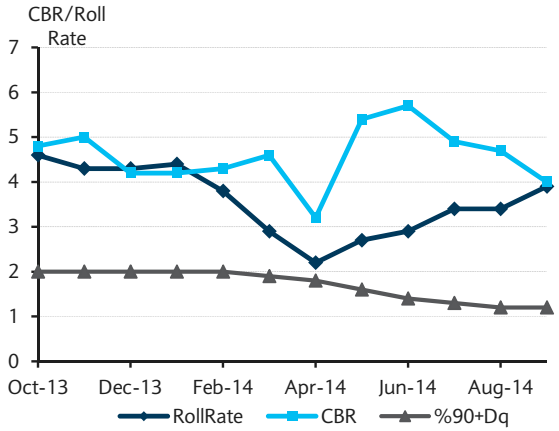
Other changes to the conventional and GNMA models

In addition to the previous changes, which we have discussed, we have implemented other changes that we will not discuss in detail, but note below.

- Updated geographic turnover multipliers to better reflect recent trends in regional turnover, in particular, lower turnover rates on New York pools.
- Modestly flattened refinance response function across FICO. This change reflects a modest easing of credit standards and is particularly noticeable in recent vintages.
- Increased refinance-related prepayments and steeper turnover aging ramp for investment properties.
- Updated loan size elbow function for conventional and GNMA collateral to better fit the empirical loan size gradient on refinance related prepayments.

FIGURE 9

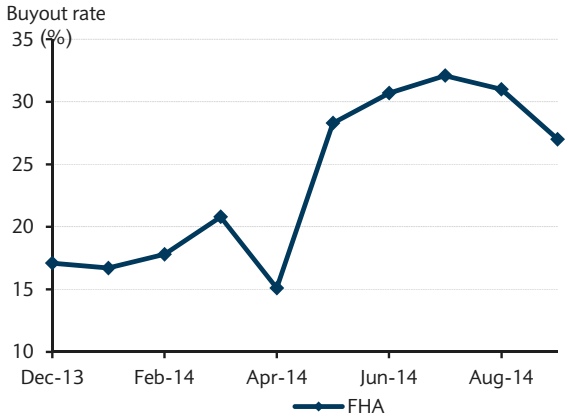
Buyouts and buyout rates have risen following …



Source: 1010 data, GN1 data, Barclays Research

FIGURE 10

…. clarifications in the GNMA buyout policy



Source: 1010 data, GN1 data, Barclays Research

Introduction of a new model for Freddie Mac M/H/R pools

As part of the release of model version V1.36, we are introducing a new model supporting Freddie Mac's re-instated and modified pool programs. Since the financial crisis, the GSEs have been required to repurchase several hundred billion dollars in delinquent loans from the pass-through securities that they guarantee. Once seriously delinquent, many of these loans have undergone various levels of loss mitigation to cure borrowers. The end result is that the GSEs have accumulated a substantial amount of modified and re-performing loans in their retained portfolios, even while their retained portfolio limits have been declining.

In order to provide an additional outlet for these loans, Freddie Mac has announced three separate programs for the pooling of re-performing loans. Figure 11 summarizes the key attributes of the various pooling programs.

- **"M" pool program** – This focuses on the re-pooling of performing loans that have been brought current by modification. Furthermore, these loans are required to be current for at least six months prior to pooling. The loans that can be pooled may have had rate reduction, term extension, principal forbearance, and recapitalization of delinquent payments. This program may include loans modified through HAMP, as long as the new rate is fixed.

- **"H" pool program** – This focuses on loans modified through the HAMP program and has interest rates that step up over time to a higher rate. Similar to the M program, these loans must be current for at least six months prior to pooling and modification and can have rate reduction, term extension, principal forbearance, and recapitalization of delinquent payments.
- **"R" pool program** – This focuses on loans that that have been delinquent but have been re-instated to current. Modifications are explicitly excluded, so other types of self cures and loans that have undergone repayment plans are likely to comprise the bulk of the new program.

FIGURE 11

Summary of Freddie Mac performing re-instated and modified pool programs

Field	Reinstated	Modified - Fixed	Modified - Step
Criteria	Previously delinquent, not modified	Modified, no step-up feature	Modified, step-up feature
Prefix	R0-R2 (30y, 20y, 15y)	MA-MD (40y, 30y, 20y, 15y)	HA-HD (40y, 30y, 20y, 15y)
Months current at issuance	At least 4 months	At least 6 months	At least 6 months
HARP eligible	Yes, if payment/origination criteria are met	Yes, if payment/origination criteria are met	Yes, if payment/origination criteria are met
Coupon Type	Fixed	Fixed	Step-up
Delinquency disclosure at issuance	12-month history	36-month history	36-month history

Source: Freddie Mac, Barclays Research

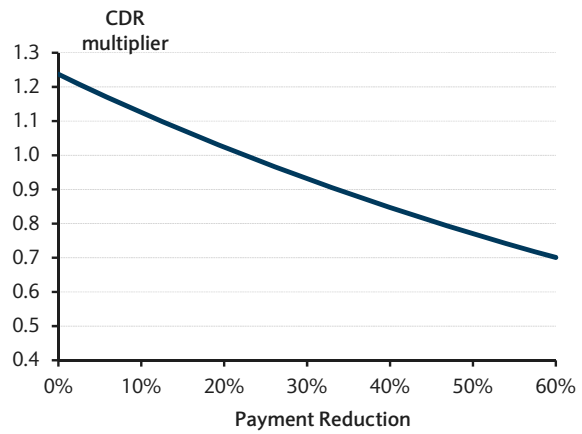
Special considerations for modeling defaults

One of the key challenges for modelling modified and re-instated pools was to utilize new data disclosures from Freddie Mac to adequately model re-default rates. Where empirical data were not available in the agency space, we looked to similar data in the non-agency sector to fit our model. We highlight some of the key additions for M/H/R pools to the roll rate model below.

Payment reduction – This effect is one of the strongest drivers affecting CDRs in the roll rate model. All else equal, modified loans that have received greater levels of payment reduction are more likely to display more limited re-default rates. Presumably, a larger payment reduction reduces a borrower's DTI to a point where he or she can recover from the original cause of delinquency, whereas a modification that has little payment reduction is unlikely to do so. This effect is observed in empirical data for modified loans in both the non-agency sector and for M/H/R pools. The effect of payment reduction on model CDRs is shown in Figure 12.

FIGURE 12

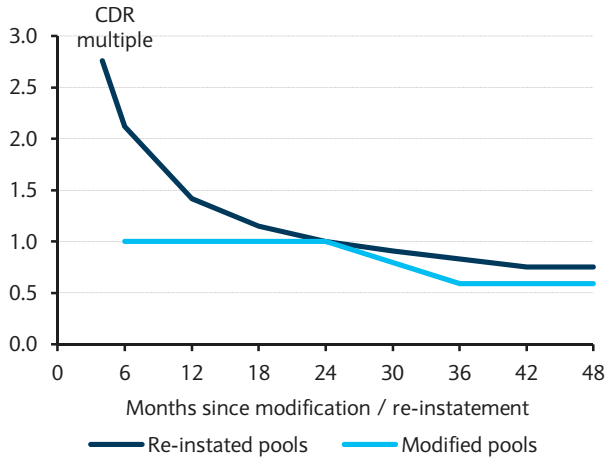
Model effect of payment reduction on CDRs



Source: Barclays Research

FIGURE 13

Model effect of months since modification on CDRs



Source: Barclays Research

Time since modification – This field serves as a proxy for the length of time that a borrower has been current since modification. For borrowers with limited or no payment reduction, this field is particularly meaningful. Default rates on these loans fall 50% for loans that have been current for three years relative to where they are six months after modification.

In contrast, re-default rates on loans that have experienced larger payment reductions show much less dependence on payment history. For loans with significant payment reduction, the modification presumably takes care of the underlying cause of delinquency, making the number of months current following modification a less meaningful variable. For loans with no or limited payment reduction, the number of months current following modification is much more indicative of a borrower's ability to pay, with performance improving significantly with greater time current since modification. Figure 13 shows the CDR multipliers for both re-instated and modified loans by months since reinstatement/modification.

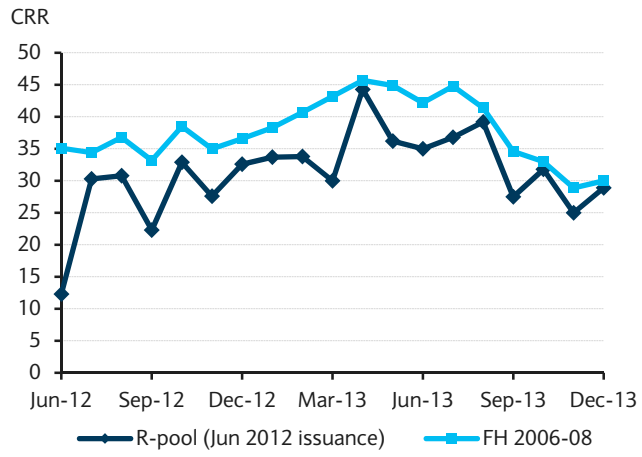
Delinquency status at modification – In general, borrowers who have been modified while current or mildly delinquent show a much lower re-default rate than those who were seriously delinquent at the time of modification. Empirical data in the non-agency sector show borrowers who were 90+ days delinquent at the time of modification had re-default rates that were two to three times that of borrowers who were modified while they were still current.

An examination of existing agency modified pools suggests that they tend to be more seriously delinquent at the time of modification. Using the capitalized amount in the modification and the original payment of the loans, we compute that most of the loans backing the first group of M pools were seven to eight months delinquent at the time of modification. Consequently, this suggests that these modified loans will experience higher re-default rates (all else equal). In the model we capture this by applying a higher CDR multiplier based on the percentage of loans 90+ day delinquent as of modification.

Special considerations for modelling voluntary prepayments

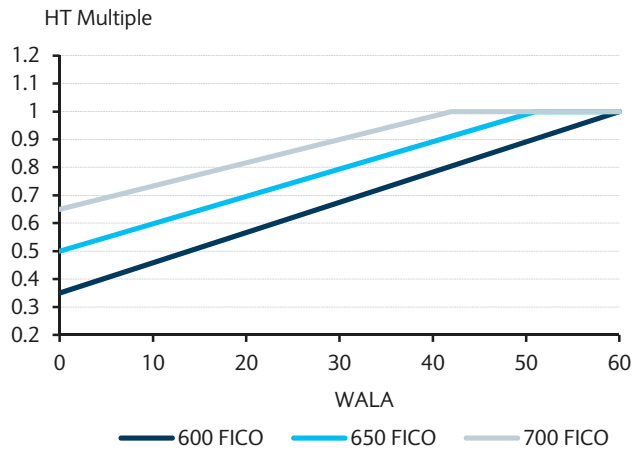
While most modified pools have been issued at below-market interest rates, R pools provide us with a good indication of how these loans will prepay given enough incentive. These loans were repurchased from pools due to significant delinquency, cured without modification and eventually re-instated. Even though loans in an M or H pool required a modification to be brought current, we expect them to perform similarly to re-instated loans from a voluntary prepayment perspective.

FIGURE 14
R pools provide a good indication of in-the-money speeds



Source: Freddie Mac, Barclays Research

FIGURE 15
Model multipliers to the housing turnover function



Source: Barclays Research

HARP eligibility – From the R pool experience, we have learned that having access to a streamlined refinancing program will result in a very strong refinance response for loans that were delinquent only a short time ago. Figure 14 shows the CRRs for R pools issued in June 2012 versus comparable pre-HARP 2006-08 collateral. Prepayments for the former reached 40 CRR when deeply in the money. Relative to the comparable pre-HARP 2006-08 cohort, the R pools had very similar, though modestly slower, speeds.

Many of the loans backing R-pools are HARP eligible. Nearly all of the loans were issued, originated and guaranteed prior to May 2009. Furthermore, as of pool issuance, all of the loans were at least nine months current. Given these characteristics, these loans were able to prepay very quickly when in the money. Most of the M and H pools are very similar to the existing R pools and look to be close to 100% HARP eligible. Consequently, we would expect these loans to prepay very similarly, after adjusting for rate incentive. Due to the modifications, M and H pools will generally have substantially lower WACs than R pools.

Loan Term – One key attribute of the initial M and H pools is that most of them have received a term extension to 40 years as part of the modification process. So one key question to answer is how this will affect their voluntary prepayments. Given the payment reduction from term extension and the lack of a credible refinancing outlet, 40y MA and HA collateral should be slower than their 30y counterparts. On an equal payment basis, a 40y borrower would have to get nearly 100bp lower rates in a 30y mortgage to break even. That said, the empirical data suggest that voluntary prepayments on 40y modified collateral appear to have a 50bp elbow shift relative to 30y modified collateral.

Slower voluntary turnover ramp – While HARP eligibility provides borrowers with a refinancing outlet, when out of the money these same borrowers have few options. As a consequence, we expect subdued housing turnover from these borrowers in the medium term. Most of these modified and re-instated pools have updated FICOs in the mid 600s, and consequently we find it unlikely that these borrowers can easily qualify for a new home purchase. A presentation from Fair Isaac Corporation suggests that following a 90-day delinquency it would take a previously 720 FICO borrower three years without any further derogatory marks to repair their credit score[3]. To capture this effect in the model, we apply a multiplier on the housing turnover function based on a pool's updated FICO score (Figure 15)

The new calculator interface for M/H/R pools

Given the amount of new data available for M and H pools, we have redesigned our calculator screens. Figure 16 shows the new calculator screen for a sample H pool, HA0001. Below, we review some of the new data available.

New disclosures in "Basic Collateral Information"

Specifically for M and H pools, new disclosures displayed include WALA at modification, months since modification, post-modification amortization term, post-modification WAM, and 90+ Day delinquencies at modification.

"Advanced coupon information"

The advanced coupon section contains information pertaining to the coupon schedule for H-pools. In this section, the initial coupon is displayed along with the fixed period, reset frequency and step increment, and the final coupon cap. In the right hand side of this section, the projected schedule (assuming zero prepays) of pool coupons is shown.

"Modification Data"

Modification data are available for M and H pools. This section gives a breakdown of the modification programs of loans, as well as the types of modifications they received (WAC reduction, term extension, principal forbearance, etc). In addition, in this section, we display the average payment reduction for the pool.

[3] http://bankinganalyticsblog.fico.com/2011/03/research-looks-at-how-mortgage-delinquencies-affect-scores.html

FIGURE 16

Sample calculator screen for an M/H/R pool

FH HA0001

Security Information												
Coupon (%)	1.750		Original Balance ($)	69,735,243			Principal (%)	100				
Cusip	3132NMAA		Current Balance ($)	66,830,866			Interest (%)	100				
Bloomberg Name	FG HA0001		Factor	0.95835138								
Issue Date	10/01/2013		Factor date	10/01/2014								
Maturity Date	10/01/2051		Delay (days)	14								
Basic Collateral Information												
Gross WAC at Issuance (%)	2.000		Current Loan Count	290			Collateral Type(s)(%)					
Curr. Gross WAC (%)	2.000		Loan size ($)				HA	100.00				
Loan Age at Modification (mos)	61		Wt. Avg Current	289,935								
WALA (mos since mod)	35		Current	230,451								
WAM (mos, post-mod)	369		Original	255,852								
Amort. Term (mos, post-mod)	405											
90+ Day DQ at Modification (%)	85											
Historical Speeds												
Actual Historical Speeds <---- Asof date: 10/01/2014 ---->					Projected Historical Speeds <---- Asof date: 10/01/2014 ---->					Difference (Projected - Actual) <---- Asof date: 10/01/2014 ---->				
Term	CPR	CRR	CBR	120+Roll	Term	CPR	CRR	CBR	120+Roll	Term	CPR	CRR	CBR	120+Roll
1 M	5.1	5.1	0.0		1 M	5.6	4.7	1.0	1.0	1 M	0.5	-0.4	1.0	
3 M	4.7	4.7	0.0		3 M	6.1	5.2	1.0	1.0	3 M	1.4	0.5	1.0	
6 M	3.2	3.2	0.0	0.0	6 M	6.1	5.1	1.0	1.0	6 M	2.9	1.9	1.0	1.0
12 M	1.9	1.9	0.0		12 M	5.5	4.5	1.1	1.1	12 M	3.6	2.6	1.1	
Advanced Coupon Information												
Step up Coupon Information					Step Date	Loans	% Loans	UPB		%UPB	Proj WAC	Proj Coupon		
Initial Coupon (%)	1.750				10/2014	0	0.0	0		0.0	2.000	1.750		
Estimated Max. Coupon (%)	3.841				07/2016	5	1.7	1,170,322		1.8	2.017	1.767		
Initial Fixed Rate Period (mos)	60				08/2016	10	3.4	2,637,441		4.0	2.056	1.807		
Rate Adjustment Freq. (mos)	12				09/2016	17	5.9	3,555,298		5.3	2.110	1.860		
Step Up Increment (%)	1.0				10/2016	86	29.7	20,390,773		30.5	2.415	2.165		
WA Months to Next Step	25				11/2016	104	35.9	23,609,496		35.3	2.768	2.519		
Next Step Date	07/01/2016				12/2016	68	23.4	15,467,536		23.1	3.000	2.750		
					07/2017	5	1.7	1,170,322		1.8	3.017	2.767		
					08/2017	10	3.4	2,637,441		4.0	3.056	2.807		
					09/2017	17	5.9	3,555,298		5.3	3.110	2.860		
					10/2017	86	29.7	20,390,773		30.5	3.415	3.165		
					11/2017	104	35.9	23,609,496		35.3	3.768	3.519		
					12/2017	68	23.4	15,467,536		23.1	3.999	3.750		
					07/2018	5	1.7	1,170,322		1.8	4.009	3.759		
					08/2018	10	3.4	2,637,441		4.0	4.027	3.778		
					09/2018	17	5.9	3,555,298		5.3	4.037	3.788		
					10/2018	48	16.6	12,403,116		18.6	4.064	3.814		
					11/2018	61	21.0	13,863,677		20.7	4.091	3.841		
Modification Data												
Modification Program (%)			WA WAC Reduction (bps)				UPB Loans w/o Defer Bal ($)	66,830,866				
Classic	0.0		All	415			UPB Loans with Defer Bal ($)					
Standard	0.0		Conditional	415			Interest bearing UPB	0				
Hamp	100.0		WA Term Extension (mos)				Deferred UPB	0				
Other	0.0		All	121			Total Interest Bearing UPB ($)	66,830,866				
Modification Type (%)			Conditional	121								
Rate	0.0		WA Forebearance (%)									
Term	0.0		All	0.0								
Rate + Term	100.0		Conditional	0.0								
Cap to Restate	0.0		WA Payment Reduction (%)	42.1								
Rate,Term & Forebearance	0.0											
Other	0.0											
Advanced Collateral Information												
Modification Date	10/01/2011		Occupancy (%)				HARP (%)					
FICO at Issuance	662		Owner Occupied	99			Pre	100				
LTV at Issuance (%)	82		Investor	0			Post	0				
Updated LTV (%)			2nd Homes	1								
Mortgage Insurance (%)	2		Property Units (%)									
DTI at Modification	35.0		Single Family	96								
			Multi Family	4								
Geographic Distribution(%)												
California	42.1		Florida	8.9			Lake States	7.0				
New York	7.2		Puerto Rico	0.0			South	6.1				
Texas	0.5						Others	28.2				
Delinquency/Servicer Information												
Delinquency (%)			Servicer (%)	Current	At Issuance		Modification Year Distribution(%)					
90+ Day	0.5		Wells Fargo	18			Year - 2011	100.00				
60 Day	0.0		BOFA/CW	0								
30 Day	3.3		Chase	47								
			Citi	8								
			Others	26								

FIGURE 16

Sample calculator screen for an M/H/R pool (continued)

Pre-Modification Data					
Original Gross WAC (%)	6.153	Origination Date	Sep 06	Origination Year Distribution (%)	
SATO (bps)	-5	Loan Term (%)		Year - 2007	30.4
WALA (mos since orig)	96	30Y	96.9	Year - 2008	23.3
Original Amort Term (mos)	356	20Y	1.8	Year - 2006	18.8
Avg. Original Loan Size ($)	246,893	15Y	1.3	Year - 2005	11.0
WA Original Loan Size ($)	284,946	Product Type (%)		OTHER	16.4
Original FICO	705	Fixed	77.3	Channel (%)	
Original LTV	71	Arm	22.7	Broker	3
Original Combined LTV	73	Loan Purpose(%)		Correspondent	2
Original Debt to Income	40	Current Purchase	30	TPO Unspecified	55
		Current Refi	70	Retail	40
		Loss Mitigation	0	Channel Unknown	0

Source: Barclays Research

"Advanced collateral information"

There are several new disclosures for M/H/R pools under the advanced collateral information. Most notable are FICO at pool issuance and estimated LTV at pool issuance. Note that these are not the standard disclosures from Freddie Mac, but new disclosures specifically provided for re-instated and loss mitigation pools.

"Pre-modification data"

For modified pools we have a new module that displays the original loan characteristics prior to modification. This includes original WAC, loan term, and product type among the disclosures.

FIGURE 17

Prepayment projections for selected M/H/R pools

								Projected 3Y CPR			Projected 3Y CRR			Projected 3Y CDR		
Pool Type	Pool No	Initial WAC	WALA	Original FICO	CLTV	Pmt Chg	Ln Sz	-100	0	100	-100	0	100	-100	0	100
HA	HA0001	2	35	705	82	-42	232	5.7	4.8	4.6	4.3	3.4	3.2	1.5	1.5	1.5
	HA0011	2	31	705	86	-42	224	4.8	4.3	4.2	3.4	2.8	2.7	1.5	1.5	1.5
	HA0013	2	31	701	86	-41	238	4.9	4.3	4.2	3.4	2.8	2.7	1.5	1.5	1.5
HB	HB0006	2.1	29	700	83	-32	185	7.2	5.7	5.1	5.3	3.8	3.2	2	2	2
	HB0010	2	32	704	83	-33	202	7.4	5.6	5	5.5	3.7	3	2	2	2
	HB0015	2	26	696	83	-33	198	6.6	5.4	5.1	4.4	3.3	2.9	2.2	2.2	2.2
MA	MA0011	4.9	44	707	81	-20	275	34.9	13.3	8.6	32.1	10.2	5.4	4	3.5	3.4
	MA0022	3.9	49	711	88	-27	229	16.4	7.3	5.9	13.8	4.9	3.4	3	2.6	2.6
	MA0028	4.4	38	705	91	-24	209	27.5	8.7	6.6	24.7	5.8	3.6	3.7	3.1	3.1
MB	MB0002	5	47	694	81	-10	167	34	21	10.3	31.6	18.3	7.6	3.4	3.2	2.9
	MB0007	4.4	35	690	84	-12	173	35.8	24.8	11.4	33.4	22.1	8.5	3.5	3.4	3.1
	MB0010	4.9	41	692	86	-9	181	34.9	20.7	9.5	32.3	17.8	6.7	3.7	3.5	3
R0	R05014	6	120	678	75	NA	91	23.3	18.9	13.5	20	15.4	9.9	4.1	4.1	4
	R05019	6.6	142	670	64	NA	62	18.4	16.4	13.9	15.5	13.4	10.8	3.4	3.4	3.4
	R05042	7.1	86	676	115	NA	220	38.8	34.7	30.6	30.3	25.7	21	11.9	11.9	11.8

Note: Projections as of October 23, 2014 close. Source: Barclays Research

Introduction of Non-Agency OAS model

Recent issue non-Agency 2.0 deals, are increasingly showing greater dependence on voluntary prepayments for their valuations as a result of their pristine credit and high levels of subordination. To allow investors to evaluate the convexity costs in these securities, we now provide the option of running bonds using the Agency OAS calculator.

To access this feature in the calculator, users can set "Run as Agency" to "Yes" in the Preferences tab. Once this option is selected, the security can be run using the Agency OAS model and the user has access to all of the knobs available in the agency calculator.

Model projections for Jumbo pools

The model uses a knobbed version of the CK model to run projections for jumbo collateral. One of the key modifications lies in the mortgage rate used in calculating economic incentive. For 30y GSE collateral, the agency model uses the 30y conventional mortgage rate. In order to calculate the correct incentive when running the agency model for non-agency collateral, the model adds a jumbo-conventional mortgage rate spread. In addition, for higher loan size collateral we have implemented a stronger turnover lock-in function, which reduces out-of-the-money prepayments for both agency conforming jumbo and jumbo borrowers.

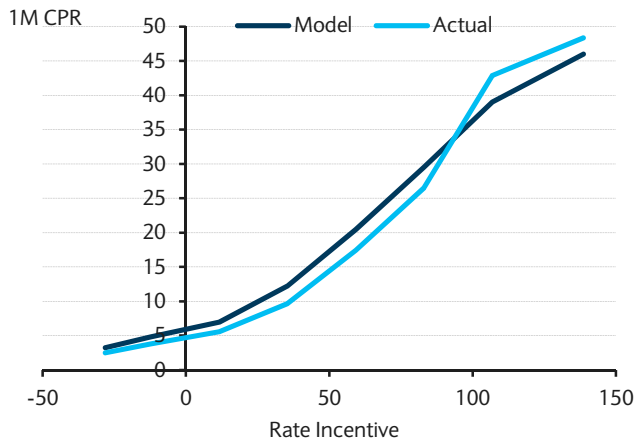
After making these adjustments and back testing with empirical jumbo prepayments, we find that the knobbed version of the conforming jumbo agency model does a reasonable job of fitting jumbo prepayments. Figure 18 shows actual and model projected prepayments during December 2012 through August 2014.

Comparison of select non-agency bonds with comparables

Figure 19 shows the relative value and risk metrics of selected recent issue non-agency bonds under the Non-Agency OAS framework. Using indicative pricing of 2 ¼ points back of TBA for non-agency 4% pass-throughs and 2-02 points back of TBA 3.5s, we obtain model LOASs of 15-30bp. Compared with TBA, this represents a pick-up in LOAS of 10-30bp.

FIGURE 18

Historical jumbo prepayments and projected speeds



Note: Non-agency data for selected prime Jumbo deals spanning Dec 2012-Aug 2014 factor dates. Source: Barclays Research

FIGURE 19

Model non-agency OAS for selected deals and comparables

Coupon	Description	Price	LOAD	OAC	LOAS	Yield	ZV Yield
3.5	WIN 2014-1 A2	-2-02	4.37	-4.2	25	3.02	3.21
	CMLTI 2014-J1 A1	-2-02	4.87	-4	31	3.13	3.27
	CSMC 2014-IVR2 A3	-2-02	4.46	-4.2	25	3.05	3.22
	FNCL 3.5 TBA	103-17	5.27	-3.7	2	2.87	3.05
4	WIN 2014-1 A1	-2-08	3.1	-4.8	21	2.7	3.2
	CSMC 2014-IVR2 A1	-2-08	3.13	-4.4	14	2.69	3.13
	FNCL 4 TBA	106-04+	4.15	-4.2	5	2.64	3.1

Note: Pricing as of October 23, 2014. Source: Barclays Research

Appendix: OAS Effect of Model Changes, Pre Beta V1.35 vs. Pre Beta V1.36

FIGURE 20

FN 30y, Market Rates: 3pm EST Close of Thursday, October 23, 2014

			Pre Beta V1.35								Pre Beta V1.36								Change							
Coupon	Vintage	Price	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life
3.0	TBA	100-11+	2.94	43	14	6.8	7.1	6.0	6.3	7.3	2.94	42	14	6.9	7.2	5.9	6.2	7.2	0.00	0	0	0.1	0.1	-0.1	-0.1	-0.1
3.0	2013	100-11+	2.94	43	16	6.9	7.1	6.1	6.4	7.2	2.94	43	17	6.9	7.2	6.1	6.4	7.2	0.00	0	0	0.0	0.0	0.0	0.0	0.0
3.0	2012	100-17+	2.91	42	15	6.8	7.0	6.4	6.5	7.2	2.91	42	15	6.8	7.1	6.3	6.4	7.2	0.00	0	0	0.1	0.0	-0.1	-0.1	0.0
3.5	TBA	103-17	2.85	55	1	5.2	6.3	9.3	10.8	11.8	2.87	55	2	5.3	6.4	8.6	10.0	11.4	0.02	0	1	0.1	0.1	-0.7	-0.8	-0.4
3.5	2013	103-17	2.96	56	21	6.2	6.8	7.1	7.7	8.5	2.95	56	21	6.1	6.7	7.4	7.9	8.7	-0.01	0	-1	-0.1	-0.1	0.3	0.2	0.2
3.5	2012	103-17	2.94	56	23	6.0	6.6	8.1	8.3	8.7	2.94	56	23	6.0	6.5	8.2	8.3	8.8	0.00	0	0	0.0	0.0	0.1	0.0	0.1
3.5	2011	103-17	2.90	56	17	5.5	6.3	9.3	9.3	9.7	2.90	56	18	5.5	6.3	9.0	9.0	9.7	0.00	0	0	0.0	0.0	-0.3	-0.3	0.0
3.5	2010	103-17	2.85	57	16	5.1	6.0	10.6	10.5	10.9	2.85	57	17	5.2	6.0	10.3	10.3	10.9	0.00	0	0	0.0	0.0	-0.3	-0.2	0.0
4.0	TBA	106-04+	2.58	66	3	4.0	5.6	16.7	17.1	16.4	2.64	67	5	4.2	5.7	15.6	15.9	15.4	0.06	1	2	0.1	0.1	-1.1	-1.2	-1.0
4.0	2013	106-04+	2.83	68	17	4.5	5.9	12.8	12.6	12.3	2.78	67	14	4.3	5.8	13.9	13.6	13.1	-0.05	-1	-3	-0.3	-0.1	1.1	1.0	0.8
4.0	2012	106-04+	2.96	69	38	5.7	6.2	9.9	10.0	9.9	2.95	69	37	5.5	6.1	10.3	10.3	10.1	-0.01	0	0	-0.2	-0.1	0.4	0.3	0.2
4.0	2011	106-04+	2.88	68	24	4.7	5.8	11.8	11.4	11.1	2.87	68	23	4.6	5.8	11.9	11.6	11.3	-0.01	0	-1	-0.1	-0.1	0.1	0.2	0.2
4.0	2010	106-04+	2.82	67	21	4.4	5.6	12.7	12.2	11.8	2.81	67	21	4.3	5.6	12.8	12.3	12.1	-0.01	0	0	-0.1	0.0	0.1	0.1	0.3
4.0	2009	106-04+	2.35	61	-4	2.4	4.7	20.7	19.1	18.7	2.47	63	5	3.0	4.9	18.2	17.1	16.9	0.12	2	9	0.6	0.2	-2.5	-2.0	-1.8
4.5	TBA	108-07+	2.47	72	14	3.0	5.0	19.5	18.4	17.3	2.49	73	15	3.1	5.0	18.9	17.8	17.0	0.02	1	2	0.1	0.1	-0.6	-0.6	-0.3
4.5	2013	108-07+	2.96	85	44	4.8	5.8	11.7	12.0	12.2	2.74	81	30	3.6	5.4	16.2	15.6	14.7	-0.22	-4	-14	-1.2	-0.4	4.5	3.6	2.5
4.5	2012	108-11+	2.99	81	53	5.5	5.8	11.1	11.2	11.2	2.98	80	52	5.2	5.7	11.6	11.5	11.4	-0.02	0	0	-0.3	-0.1	0.5	0.3	0.2
4.5	2011	108-09+	2.82	80	32	3.8	5.4	14.5	13.9	13.2	2.74	79	30	3.6	5.3	15.7	15.1	14.1	-0.08	-2	-3	-0.2	-0.1	1.2	1.2	0.9
4.5	2010	108-09+	2.69	78	26	3.4	5.2	15.9	15.2	14.5	2.62	77	24	3.2	5.1	16.6	15.9	15.3	-0.06	-1	-2	-0.2	-0.1	0.7	0.7	0.8
4.5	2009	108-07+	2.60	76	23	3.0	5.0	17.1	16.0	15.4	2.54	75	21	2.9	4.9	17.7	16.7	16.2	-0.06	-1	-2	-0.2	-0.1	0.6	0.7	0.8
5.0	TBA	110-21	0.58	-1	-56	0.4	3.5	33.5	32.4	31.7	1.45	31	-17	1.8	3.9	26.8	25.8	24.9	0.87	31	39	1.4	0.4	-6.7	-6.6	-6.8
5.0	2011	110-25	2.65	81	39	3.7	5.2	15.9	15.7	14.8	2.54	77	35	3.4	5.1	17.3	16.8	15.8	-0.11	-3	-5	-0.3	-0.1	1.4	1.1	1.0
5.0	2010	110-25	2.47	77	30	3.2	5.0	17.3	17.1	16.3	2.36	73	26	3.0	4.9	18.6	18.2	17.3	-0.11	-3	-4	-0.2	-0.1	1.3	1.1	1.0
5.0	2009	110-21	2.37	74	26	2.8	4.8	18.9	18.3	17.3	2.28	71	23	2.7	4.7	20.0	19.3	18.1	-0.09	-3	-3	-0.1	-0.1	1.1	1.0	0.8
5.0	2008	110-21	0.75	9	-48	0.5	3.6	32.5	31.4	30.5	1.56	36	-11	1.9	4.0	26.2	25.2	24.0	0.81	27	36	1.4	0.4	-6.3	-6.2	-6.5
5.0	2005	110-25	1.27	23	-22	1.3	3.8	27.3	26.8	25.4	1.81	41	5	2.4	4.1	22.7	22.1	20.9	0.55	17	27	1.1	0.3	-4.6	-4.7	-4.5
5.0	2004	110-25	1.62	38	-4	1.8	4.0	24.4	23.4	22.1	2.13	54	24	3.0	4.3	19.4	18.6	17.6	0.52	16	28	1.2	0.4	-5.0	-4.8	-4.5
5.0	2003	110-25	1.85	46	9	2.1	4.1	21.9	20.5	19.7	2.24	58	32	3.2	4.4	17.8	16.8	16.1	0.39	12	24	1.1	0.3	-4.1	-3.7	-3.6
5.5	TBA	111-20	0.62	-18	-51	0.5	3.2	34.3	32.7	32.0	1.42	22	-10	1.6	3.6	28.7	27.2	26.2	0.80	40	41	1.1	0.4	-5.6	-5.5	-5.8
5.5	2008	111-20	0.91	11	-33	0.5	3.5	33.0	31.2	30.1	1.81	50	12	1.9	3.9	26.3	24.8	23.5	0.90	39	45	1.4	0.4	-6.7	-6.4	-6.6
5.5	2007	111-20	0.96	5	-32	0.7	3.4	32.4	30.6	29.6	1.68	37	4	1.8	3.7	27.2	25.6	24.3	0.72	32	37	1.1	0.3	-5.2	-5.0	-5.3
5.5	2006	111-20	1.21	18	-18	1.1	3.5	29.9	28.9	27.7	1.89	49	18	2.2	3.9	24.9	23.8	22.5	0.69	31	36	1.1	0.4	-5.0	-5.1	-5.2
5.5	2005	112-04	1.59	40	2	1.6	3.8	24.6	24.6	23.4	2.13	61	31	2.6	4.2	20.6	20.3	19.3	0.54	20	29	1.1	0.3	-4.0	-4.3	-4.1
5.5	2004	112-20	1.55	33	-4	1.8	3.9	24.3	23.4	22.3	2.20	59	33	3.0	4.3	19.0	18.3	17.3	0.65	26	37	1.3	0.4	-5.3	-5.1	-5.0
5.5	2003	112-20	1.61	35	1	1.9	3.9	23.6	22.3	21.4	2.24	59	37	3.2	4.3	18.1	17.1	16.4	0.64	24	36	1.3	0.4	-5.5	-5.2	-5.0
6.0	TBA	113-06	-0.02	-70	-84	0.1	2.9	37.7	35.7	35.2	1.02	-7	-28	1.2	3.3	31.4	29.7	28.7	1.04	63	57	1.2	0.4	-6.3	-6.0	-6.5
6.0	2008	113-06	1.06	8	-22	0.8	3.4	31.4	29.7	28.6	1.98	55	29	2.2	3.9	25.2	23.8	22.5	0.91	47	51	1.4	0.5	-6.2	-5.9	-6.1
6.0	2007	113-06	1.02	1	-25	0.8	3.4	31.6	29.7	28.7	1.80	42	18	2.0	3.7	26.4	24.8	23.6	0.77	41	43	1.2	0.4	-5.2	-4.9	-5.1
6.0	2006	113-06	1.28	18	-10	1.1	3.5	29.2	27.9	26.8	2.02	56	32	2.2	3.8	24.2	23.0	21.8	0.74	38	42	1.2	0.4	-5.0	-4.9	-5.0
6.5	TBA	113-30	-0.10	-79	-84	0.0	2.8	38.9	37.1	36.4	1.39	17	0	1.5	3.3	30.3	28.8	27.7	1.48	96	84	1.5	0.5	-8.6	-8.3	-8.7
6.5	2008	113-31	1.65	47	25	1.5	3.5	28.4	27.2	26.1	2.49	93	73	2.7	3.9	22.7	21.7	20.6	0.84	45	48	1.2	0.4	-5.7	-5.5	-5.5
6.5	2007	113-31	1.54	36	17	1.5	3.4	28.5	27.6	26.7	2.35	79	62	2.6	3.8	23.3	22.4	21.5	0.80	43	45	1.1	0.4	-5.2	-5.2	-5.2
6.5	2006	113-31	1.64	45	24	1.5	3.4	27.6	26.7	25.9	2.45	87	70	2.7	3.8	22.3	21.4	20.5	0.81	42	46	1.2	0.4	-5.3	-5.3	-5.4

Source: Barclays Research

FIGURE 21

IOS, Market Rates: 3pm EST Close of Thursday, October 23, 2014

			Pre Beta V1.35								Pre Beta V1.36								Change							
Security	Coupon	Price	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life
IFN-33012 IO	3.0	21-12	2.70	242	79	-8.7	5.8	6.4	6.6	7.4	2.81	251	97	-7.9	5.8	6.3	6.5	7.3	0.11	9	18	0.8	0.0	-0.1	-0.1	-0.1
IFN-33013 IO	3.0	21-29+	2.60	227	70	-8.1	5.9	6.0	6.4	7.3	2.69	234	84	-7.5	5.9	6.0	6.3	7.2	0.09	7	14	0.6	0.0	0.0	-0.1	-0.1
IFN-33510 IO	3.5	20-25+	1.04	341	110	-20.1	5.1	11.1	11.1	11.3	1.23	354	121	-19.0	5.1	10.7	10.6	11.2	0.19	13	11	1.1	0.0	-0.4	-0.5	-0.1
IFN-33512 IO	3.5	22-11+	2.21	319	149	-13.3	5.4	8.8	9.1	9.6	2.60	328	163	-12.0	5.4	8.4	8.5	9.2	0.39	9	14	1.3	0.0	-0.4	-0.6	-0.4
IFN-33513 IO	3.5	22-26	2.18	321	155	-12.9	5.5	8.3	8.8	9.5	2.59	331	161	-12.4	5.5	8.0	8.4	9.2	0.41	11	7	0.5	0.0	-0.3	-0.4	-0.3
IFN-34009 IO	4.0	20-06+	-0.08	398	154	-26.8	4.6	16.5	15.5	14.9	-0.21	417	155	-26.5	4.6	16.2	15.3	15.0	-0.13	19	1	0.3	0.0	-0.3	-0.2	0.1
IFN-34010 IO	4.0	21-24+	0.66	346	151	-21.8	4.9	14.8	14.1	13.3	1.01	375	169	-21.0	4.9	14.0	13.5	13.0	0.35	29	18	0.7	-0.1	-0.8	-0.6	-0.3
IFN-34011 IO	4.0	22-09	0.99	354	169	-20.8	5.0	14.1	13.7	12.8	1.35	381	186	-20.1	5.0	13.4	13.1	12.5	0.36	27	17	0.7	0.0	-0.7	-0.6	-0.3
IFN-34013 IO	4.0	21-29+	-0.66	340	148	-26.4	5.2	17.8	16.6	15.1	-0.31	380	157	-27.6	5.2	17.1	16.0	14.7	0.35	41	9	-1.1	0.0	-0.7	-0.6	-0.4
IFN-34509 IO	4.5	20-14+	-1.10	404	207	-28.1	4.4	20.6	19.2	18.0	-1.43	418	202	-28.4	4.4	20.5	19.2	18.3	-0.33	14	-5	-0.4	0.0	-0.1	0.0	0.3
IFN-34510 IO	4.5	21-31	0.52	366	226	-21.6	4.6	17.5	16.6	15.4	0.51	390	232	-21.7	4.6	17.2	16.3	15.5	-0.01	25	7	0.0	0.0	-0.3	-0.3	0.1
IFN-34511 IO	4.5	23-00+	0.91	338	207	-20.0	4.8	16.3	15.5	14.4	0.79	358	205	-20.4	4.7	16.2	15.5	14.6	-0.12	20	-2	-0.4	0.0	-0.1	0.0	0.2
IFN-35003 IO	5.0	21-05+	-4.53	44	-78	-21.7	4.0	22.9	21.5	20.5	0.01	253	175	-12.1	3.8	18.4	17.4	16.5	4.54	209	254	9.7	-0.2	-4.5	-4.1	-4.0
IFN-35005 IO	5.0	20-22+	-8.47	-119	-187	-29.2	4.2	26.8	26.8	25.4	-3.57	100	46	-19.7	4.0	22.7	22.4	21.1	4.91	219	233	9.5	-0.2	-4.1	-4.4	-4.3
IFN-35008 IO	5.0	18-02	-9.42	40	4	-35.0	4.0	31.9	30.7	29.8	-2.18	388	346	-23.1	3.7	25.7	24.6	23.7	7.24	349	342	12.0	-0.3	-6.2	-6.1	-6.1
IFN-35009 IO	5.0	21-11	-0.29	424	317	-21.6	4.2	20.5	19.8	18.7	-0.83	416	298	-22.1	4.2	20.9	20.2	19.2	-0.54	-8	-19	-0.5	0.0	0.4	0.4	0.5
IFN-35010 IO	5.0	22-17+	1.12	425	343	-17.6	4.3	17.8	17.4	16.6	0.68	424	327	-18.3	4.3	18.1	17.7	16.9	-0.44	-1	-16	-0.7	0.0	0.3	0.3	0.3
IFN-35503 IO	5.5	21-08+	-4.46	19	-36	-19.2	3.7	25.0	23.5	22.5	2.16	375	351	-8.9	3.5	18.8	17.7	16.8	6.62	356	387	10.4	-0.2	-6.2	-5.8	-5.7
IFN-35505 IO	5.5	21-29	-5.99	-75	-92	-23.3	4.0	25.6	25.3	24.1	-1.25	164	158	-14.9	3.8	21.6	21.2	20.0	4.75	239	251	8.3	-0.2	-4.0	-4.1	-4.1
IFN-35508 IO	5.5	19-17	-9.28	-176	-103	-31.9	4.1	33.3	31.4	30.3	-1.88	240	284	-20.5	3.7	26.6	25.2	24.0	7.39	417	387	11.4	-0.4	-6.7	-6.2	-6.3
IFN-36008 IO	6.0	20-27+	-7.89	-298	-142	-26.0	4.0	33.1	31.1	29.8	-0.79	169	276	-16.0	3.6	26.7	25.1	23.6	7.10	466	418	10.0	-0.3	-6.4	-6.0	-6.2
IFN-36567 IO	6.5	22-26+	-6.19	-331	-176	-18.5	3.8	30.0	28.6	27.7	0.00	104	206	-10.6	3.5	24.7	23.6	22.5	6.19	435	382	7.9	-0.2	-5.3	-5.0	-5.2
IG2-34010 IO	4.0	20-20+	1.87	328	211	-15.6	4.8	13.8	14.0	13.2	1.25	291	169	-16.2	4.9	15.8	15.7	13.6	-0.62	-38	-42	-0.5	0.1	2.0	1.7	0.4
IG2-34510 IO	4.5	21-13+	1.02	295	212	-19.2	4.6	17.0	17.0	15.5	1.22	250	170	-18.9	4.7	18.3	17.9	15.2	0.20	-46	-42	0.3	0.2	1.3	0.9	-0.3
IG2-35010 IO	5.0	21-28+	2.33	400	368	-16.6	4.3	17.6	17.7	16.0	2.29	362	311	-17.1	4.4	19.6	19.1	15.9	-0.04	-38	-57	-0.5	0.2	2.0	1.4	-0.1

Source: Barclays Research

FIGURE 22

FN 15y, Market Rates: 3pm EST Close of Thursday, October 23, 2014

			Pre Beta V1.35								Pre Beta V1.36								Change							
Coupon	Vintage	Price	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life
2.5	TBA	101-27	2.08	8	-6	4.6	4.7	7.3	7.9	8.0	2.07	11	0	4.4	4.6	7.2	7.9	8.6	-0.01	3	6	-0.1	-0.1	-0.1	0.0	0.6
2.5	2013	101-27	2.08	8	-3	4.6	4.7	7.1	7.7	7.8	2.07	11	2	4.5	4.6	7.2	7.9	8.6	-0.01	3	6	-0.2	-0.2	0.1	0.2	0.8
2.5	2012	101-31	2.03	9	-3	4.3	4.5	8.1	8.3	8.2	2.01	12	3	4.2	4.3	8.2	8.6	9.2	-0.02	3	6	-0.2	-0.2	0.1	0.3	1.0
3.0	TBA	103-29	2.13	15	-6	4.4	4.8	8.0	10.0	9.9	2.12	16	-2	4.3	4.8	8.1	9.7	10.0	-0.01	1	4	-0.1	-0.1	0.1	-0.3	0.1
3.0	2013	103-29	2.09	15	-1	4.2	4.6	9.6	9.9	9.6	2.08	17	3	4.1	4.5	9.5	9.8	10.1	-0.01	1	4	-0.1	-0.1	-0.1	-0.1	0.5
3.0	2012	103-29	2.04	17	5	4.0	4.3	9.4	9.4	9.3	2.01	18	8	3.9	4.1	9.5	9.7	10.3	-0.03	1	4	-0.1	-0.2	0.1	0.3	1.0
3.0	2011	103-29	1.98	17	2	3.6	4.1	10.9	10.5	10.1	1.95	18	7	3.5	3.9	10.7	10.8	11.1	-0.03	1	5	-0.1	-0.2	-0.2	0.3	1.0
3.5	TBA	105-20	1.76	16	-1	2.6	3.5	16.7	15.0	14.1	1.75	17	4	2.7	3.4	15.0	14.4	14.2	0.00	0	5	0.2	-0.1	-1.7	-0.6	0.1
3.5	2013	105-20	2.17	28	12	4.0	4.5	10.7	10.7	10.5	2.15	28	13	3.9	4.4	10.9	10.8	11.0	-0.03	0	1	-0.1	-0.1	0.2	0.1	0.5
3.5	2012	105-24	2.06	24	14	3.9	4.2	10.0	10.0	9.9	2.01	23	14	3.7	4.0	10.3	10.5	10.9	-0.05	-1	1	-0.2	-0.2	0.3	0.5	1.0
3.5	2011	105-26	1.92	19	5	3.3	3.9	12.3	11.7	11.3	1.88	18	7	3.3	3.8	11.9	12.0	12.2	-0.04	-1	2	0.0	-0.1	-0.4	0.3	0.9
3.5	2010	105-24	1.82	17	3	3.0	3.6	13.5	12.6	12.1	1.77	16	6	3.0	3.5	12.9	12.9	13.0	-0.04	-2	3	0.0	-0.1	-0.6	0.3	0.9
4.0	TBA	106-02+	-0.10	-76	-79	1.0	1.6	14.7	13.5	14.0	-0.14	-83	-84	1.2	1.6	15.2	14.7	14.8	-0.04	-7	-5	0.2	0.0	0.5	1.2	0.8
4.0	2011	106-20+	2.10	44	30	3.1	3.7	13.5	13.0	12.5	2.05	41	31	3.1	3.6	13.3	13.3	13.3	-0.05	-2	1	0.0	-0.1	-0.2	0.3	0.8
4.0	2010	106-18+	1.97	40	26	2.8	3.5	14.7	13.9	13.3	1.93	37	28	2.8	3.4	14.1	14.0	14.0	-0.04	-2	1	0.0	-0.1	-0.6	0.1	0.7
4.0	2009	106-18+	1.76	31	19	2.4	3.2	16.3	15.1	14.6	1.74	28	20	2.5	3.1	15.3	15.1	15.1	-0.03	-3	1	0.1	-0.1	-1.0	0.0	0.5
4.5	TBA	105-25	0.49	-19	-22	1.0	1.6	16.1	14.8	15.4	0.50	-21	-22	1.2	1.6	15.4	15.0	15.0	0.01	-2	-1	0.2	0.0	-0.7	0.2	-0.4
4.5	2010	107-09	2.21	66	54	2.7	3.4	14.8	14.1	13.8	2.16	63	54	2.7	3.3	14.5	14.4	14.5	-0.04	-3	-1	0.0	-0.1	-0.3	0.3	0.7
4.5	2009	107-09	2.04	59	48	2.4	3.2	15.6	14.8	14.5	1.99	55	46	2.5	3.1	15.3	15.3	15.3	-0.05	-4	-2	0.0	-0.1	-0.3	0.5	0.8

Source: Barclays Research

FIGURE 23

FN 20y, Market Rates: 3pm EST Close of Thursday, October 23, 2014

			Pre Beta V1.35								Pre Beta V1.36								Change							
Coupon	Vintage	Price	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life
3.0	TBA	102-06+	2.55	35	0	5.3	5.7	5.8	8.2	10.7	2.54	35	1	5.1	5.6	6.3	8.4	11.1	-0.01	0	1	-0.2	-0.1	0.5	0.2	0.4
3.0	2013	102-06+	2.58	38	16	5.5	5.6	6.5	7.0	8.5	2.58	39	17	5.4	5.6	5.9	6.4	8.5	0.00	1	1	-0.1	0.0	-0.6	-0.6	0.0
3.0	2012	102-06+	2.55	40	15	5.2	5.4	6.9	7.7	9.4	2.55	41	18	5.1	5.3	6.3	7.2	9.6	0.00	1	2	-0.1	-0.1	-0.6	-0.5	0.2
3.5	TBA	104-22+	2.44	45	5	4.5	5.3	9.9	12.3	13.4	2.37	44	0	4.0	5.1	12.6	14.1	14.9	-0.07	-1	-4	-0.5	-0.2	2.7	1.8	1.5
3.5	2013	104-22+	2.56	46	19	4.9	5.4	8.5	9.3	10.3	2.53	47	17	4.6	5.3	9.1	9.6	10.9	-0.03	0	-2	-0.3	-0.1	0.6	0.3	0.6
3.5	2012	105-06+	2.37	37	9	4.4	5.1	9.7	10.8	11.4	2.35	38	9	4.3	5.0	9.5	10.8	11.8	-0.02	1	1	-0.2	-0.1	-0.2	0.0	0.4
3.5	2011	104-22+	2.37	46	14	4.0	4.8	10.7	13.7	13.3	2.35	47	16	3.9	4.7	10.4	13.7	13.8	-0.02	1	2	-0.1	-0.1	-0.3	0.0	0.5
3.5	2010	104-22+	2.27	45	12	3.6	4.5	13.4	16.6	14.7	2.27	46	17	3.6	4.4	12.8	16.0	14.7	0.00	1	5	0.0	0.0	-0.6	-0.6	0.0
4.0	TBA	107-00+	2.58	57	26	4.7	5.4	9.0	10.7	11.4	2.44	53	15	3.9	5.1	12.5	13.2	13.4	-0.14	-3	-10	-0.8	-0.3	3.5	2.5	2.0
4.0	2013	107-00+	2.49	52	22	4.3	5.1	12.3	12.3	12.3	2.37	49	14	3.6	4.9	15.2	14.1	14.0	-0.11	-3	-8	-0.6	-0.2	2.9	1.8	1.7
4.0	2012	107-16+	2.42	43	21	4.5	5.0	10.7	10.9	10.9	2.36	43	18	4.2	4.9	11.2	11.3	11.7	-0.05	0	-3	-0.3	-0.1	0.5	0.4	0.8
4.0	2011	107-08+	2.19	41	9	3.5	4.5	14.5	15.7	14.5	2.15	40	8	3.3	4.4	14.7	16.0	15.1	-0.04	0	-1	-0.2	-0.1	0.2	0.3	0.6
4.0	2010	107-00+	2.08	40	7	2.9	4.2	17.6	18.3	16.3	2.08	40	10	2.9	4.2	16.9	17.7	16.2	0.01	1	3	0.0	0.0	-0.7	-0.6	-0.1
4.0	2009	107-00+	2.01	34	8	2.8	4.0	20.3	17.7	16.1	2.05	36	12	2.8	3.9	18.5	16.4	15.7	0.03	2	5	0.0	0.0	-1.8	-1.3	-0.4
4.5	TBA	108-20	2.84	79	58	5.1	5.4	7.2	9.0	10.2	2.73	77	48	4.4	5.2	9.3	10.4	11.7	-0.11	-2	-9	-0.7	-0.2	2.1	1.4	1.5
4.5	2011	109-20	1.98	36	5	2.9	4.4	15.6	17.0	15.9	1.90	35	2	2.7	4.3	15.9	17.6	16.8	-0.08	-1	-3	-0.3	-0.1	0.3	0.6	0.9
4.5	2010	108-20	1.98	46	16	2.6	4.0	19.8	19.6	17.9	1.96	46	16	2.4	4.0	19.5	19.6	18.3	-0.03	0	1	-0.1	-0.1	-0.3	0.0	0.4
4.5	2009	108-20	1.99	43	17	2.6	3.9	20.4	18.3	17.1	2.00	44	20	2.6	3.9	19.3	17.7	17.0	0.01	1	3	0.0	0.0	-1.1	-0.6	-0.1
5.0	TBA	110-21	1.50	14	-7	2.2	3.5	23.3	21.1	20.4	1.54	21	0	2.4	3.5	20.9	20.1	20.0	0.04	6	7	0.2	0.0	-2.4	-1.0	-0.4
5.0	2003	110-21	0.83	-28	-39	1.6	2.8	20.6	19.2	19.0	1.01	-21	-28	2.0	2.8	17.1	17.2	17.0	0.18	7	11	0.5	0.0	-3.5	-2.0	-2.0
5.5	TBA	111-20	1.65	29	12	2.2	3.4	23.5	21.5	20.7	1.70	36	19	2.4	3.4	21.1	20.4	20.3	0.06	7	7	0.1	0.0	-2.4	-1.1	-0.4
5.5	2003	111-20	0.87	-24	-31	1.6	2.7	21.5	20.0	19.7	1.07	-14	-19	2.0	2.8	18.0	18.0	17.8	0.20	10	12	0.4	0.1	-3.5	-2.0	-1.9

Source: Barclays Research

FIGURE 24

GN2 30y, Market Rates: 3pm EST Close of Thursday, October 23, 2014

			Pre Beta V1.35								Pre Beta V1.36								Change							
Coupon	Vintage	Price	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life
3.0	TBA	102-03+	2.64	27	-4	6.0	6.2	8.9	9.9	10.3	2.63	25	-4	5.8	6.2	10.2	10.9	10.7	-0.01	-1	1	-0.1	-0.1	1.3	1.0	0.4
3.0	2013	102-04+	2.63	26	-5	5.9	6.2	8.9	9.9	10.3	2.62	25	-4	5.8	6.2	10.2	11.0	10.7	-0.01	-1	1	-0.1	-0.1	1.3	1.1	0.4
3.0	2012	102-06+	2.60	26	-6	5.8	6.0	10.4	10.8	10.8	2.60	25	-5	5.7	6.0	11.5	11.9	11.1	-0.01	-1	1	-0.1	0.0	1.1	1.1	0.3
3.5	TBA	104-22	2.56	44	-7	5.0	5.8	7.2	11.5	13.8	2.37	39	-17	3.8	5.2	18.0	17.8	17.1	-0.19	-5	-10	-1.2	-0.6	10.8	6.3	3.3
3.5	2013	104-23	2.64	40	1	5.3	5.9	10.1	11.1	11.5	2.60	37	-1	4.9	5.7	12.9	13.0	12.3	-0.04	-2	-3	-0.4	-0.2	2.8	1.9	0.8
3.5	2012	104-26	2.57	37	-3	4.9	5.6	12.4	12.7	12.4	2.54	35	-3	4.7	5.6	14.2	14.2	12.9	-0.03	-2	0	-0.2	-0.1	1.8	1.5	0.5
3.5	2011	104-26	2.50	36	-7	4.6	5.4	14.4	14.6	13.7	2.51	35	-5	4.5	5.4	15.3	15.2	13.4	0.01	-2	2	0.0	0.0	0.9	0.6	-0.3
4.0	TBA	106-28+	2.47	56	3	4.4	5.4	10.4	14.5	15.7	2.22	45	-10	3.6	4.9	18.5	19.5	18.8	-0.26	-11	-13	-0.8	-0.5	8.1	5.0	3.1
4.0	2012	106-28+	2.66	52	13	4.8	5.6	13.3	13.3	12.6	2.67	50	14	4.7	5.6	14.9	14.2	12.2	0.02	-2	1	-0.2	0.0	1.6	0.9	-0.4
4.0	2011	107-00+	2.41	45	0	3.9	5.1	17.2	17.1	15.4	2.44	43	1	3.8	5.1	18.1	17.7	14.9	0.03	-2	1	-0.1	0.0	0.9	0.6	-0.5
4.0	2010	107-08+	2.51	45	4	4.2	5.3	14.1	14.2	13.4	2.48	42	4	4.0	5.3	16.0	15.8	13.7	-0.03	-3	0	-0.1	-0.1	1.9	1.6	0.3
4.5	TBA	108-30+	2.30	51	6	3.2	4.8	19.7	19.4	17.3	2.32	48	6	3.1	4.8	21.0	20.1	16.9	0.02	-3	0	-0.1	0.0	1.3	0.7	-0.4
4.5	2011	109-04	2.35	51	8	3.5	4.9	18.6	18.4	16.4	2.42	50	10	3.4	5.0	19.5	18.7	15.6	0.07	-1	2	-0.1	0.0	0.9	0.3	-0.8
4.5	2010	109-16+	2.44	50	8	3.5	5.1	15.8	15.8	14.5	2.44	46	7	3.4	5.0	17.5	16.9	14.4	0.00	-4	-1	-0.1	-0.1	1.7	1.1	-0.1
4.5	2009	109-07+	2.48	53	13	3.6	5.0	15.9	15.8	14.5	2.45	49	11	3.3	4.9	17.9	17.4	14.8	-0.03	-4	-2	-0.2	-0.1	2.0	1.6	0.3
5.0	TBA	110-17+	2.03	37	8	3.0	4.1	23.5	22.4	20.3	2.42	53	30	3.7	4.5	21.4	19.6	16.7	0.39	16	23	0.7	0.4	-2.1	-2.8	-3.6
5.0	2010	111-23+	2.35	51	13	3.3	5.0	17.1	17.1	15.6	2.38	50	14	3.1	4.9	18.8	18.1	15.1	0.04	-2	0	-0.2	0.0	1.7	1.0	-0.5
5.0	2009	111-04+	2.44	60	23	3.3	4.8	17.2	17.1	15.7	2.48	58	24	3.2	4.9	19.0	18.1	15.2	0.04	-1	1	-0.1	0.0	1.8	1.0	-0.5
5.0	2005	111-05+	2.19	39	18	3.5	4.3	18.9	18.1	16.6	2.26	44	21	3.3	4.5	19.9	18.3	16.0	0.06	6	3	-0.2	0.1	1.0	0.2	-0.6
5.0	2004	111-17+	2.17	35	16	3.7	4.4	17.4	17.0	15.6	2.46	51	35	4.1	4.8	15.6	14.6	12.9	0.29	16	18	0.4	0.4	-1.8	-2.4	-2.7
5.0	2003	111-29+	2.12	28	12	3.7	4.4	16.9	16.1	14.8	2.43	46	32	4.2	4.8	14.7	13.6	12.0	0.30	18	20	0.5	0.4	-2.2	-2.5	-2.8
5.5	TBA	111-12+	1.76	33	6	2.2	3.6	27.8	26.5	24.2	2.11	51	24	2.6	3.9	26.4	24.3	21.4	0.35	17	19	0.4	0.2	-1.4	-2.2	-2.8
5.5	2008	111-12+	1.78	35	7	2.2	3.6	27.7	26.3	24.0	2.13	52	26	2.6	3.9	26.2	24.1	21.3	0.35	17	18	0.4	0.2	-1.5	-2.2	-2.7
5.5	2005	112-00+	2.49	67	50	3.6	4.3	18.4	17.8	16.4	2.54	71	51	3.4	4.4	19.8	18.2	15.9	0.05	5	1	-0.2	0.1	1.4	0.4	-0.5
5.5	2004	112-04+	2.49	66	50	3.6	4.3	17.5	17.0	15.6	2.81	85	71	4.1	4.7	15.7	14.6	12.9	0.31	19	20	0.4	0.4	-1.8	-2.4	-2.7
5.5	2003	112-12+	2.41	58	44	3.6	4.2	17.4	16.7	15.5	2.76	80	68	4.1	4.7	14.9	13.9	12.4	0.35	22	24	0.5	0.4	-2.5	-2.8	-3.1
6.0	TBA	113-10	1.81	29	10	2.5	3.6	25.9	25.1	23.3	2.17	51	32	2.9	3.9	25.1	23.3	20.7	0.36	22	22	0.4	0.3	-0.8	-1.8	-2.6
6.0	2008	113-10	1.85	31	12	2.5	3.6	25.6	24.9	23.1	2.19	52	33	2.9	3.9	24.9	23.2	20.6	0.34	21	21	0.4	0.2	-0.7	-1.7	-2.5
6.0	2007	113-16	2.09	46	29	2.9	3.8	22.8	22.6	20.9	2.09	44	27	2.8	3.8	24.6	23.4	20.8	0.00	-2	-2	0.0	0.0	1.8	0.8	-0.1
6.0	2006	113-28	2.15	48	31	3.0	4.0	21.4	21.2	19.5	2.25	52	36	3.1	4.0	22.6	21.3	18.8	0.10	4	4	0.1	0.1	1.2	0.1	-0.7
6.0	2004	114-20	2.34	52	41	3.6	4.2	17.6	17.4	16.2	2.77	82	71	4.1	4.7	15.5	14.6	13.0	0.43	29	29	0.5	0.5	-2.1	-2.8	-3.2
6.0	2003	115-02	2.21	40	30	3.6	4.2	17.5	17.3	16.1	2.71	75	65	4.1	4.7	14.6	13.9	12.5	0.50	35	35	0.6	0.5	-2.9	-3.4	-3.6
6.5	TBA	114-09	2.08	48	34	2.6	3.6	25.2	24.2	22.8	2.54	78	64	3.1	3.9	24.3	22.1	19.7	0.46	30	30	0.5	0.3	-0.9	-2.1	-3.1
6.5	2008	114-17	2.02	42	28	2.6	3.6	25.1	24.3	22.7	2.44	69	55	3.1	3.9	24.6	22.5	19.9	0.41	27	26	0.4	0.3	-0.5	-1.8	-2.8

Source: Barclays Research

FIGURE 25

GN 30y, Market Rates: 3pm EST Close of Thursday, October 23, 2014

		Pre Beta V1.35									Pre Beta V1.36								Change							
Coupon	Vintage	Price	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life	Yield	ZV	OAS	OAD	OASD	1-Yr	3-Yr	Life
3.0	TBA	102-05	2.62	27	-6	5.9	6.1	9.4	10.6	11.0	2.61	26	-3	5.9	6.1	11.1	12.0	11.4	-0.01	-1	3	0.0	0.0	1.7	1.4	0.4
3.0	2013	102-05+	2.62	27	-6	5.9	6.1	9.7	10.7	10.9	2.61	26	-3	5.9	6.1	11.6	12.0	11.3	-0.01	-1	3	0.0	0.0	1.9	1.3	0.4
3.0	2012	102-07	2.61	26	-6	5.9	6.1	10.5	10.9	10.9	2.61	25	-2	6.0	6.2	11.6	11.9	10.9	0.00	-1	4	0.1	0.1	1.1	1.0	0.0
3.5	TBA	104-18	2.56	41	-2	4.7	5.4	14.1	14.3	13.7	2.55	39	2	4.9	5.4	15.4	15.4	13.9	-0.01	-2	4	0.2	0.0	1.3	1.1	0.2
3.5	2013	104-18	2.70	42	8	5.6	6.1	9.9	10.9	11.1	2.70	41	12	5.7	6.1	11.7	11.9	10.8	0.01	-2	4	0.0	0.0	1.8	1.0	-0.3
3.5	2012	104-19	2.60	41	1	5.0	5.6	13.2	13.4	12.7	2.62	39	6	5.3	5.7	14.1	13.9	12.2	0.02	-2	5	0.2	0.1	0.9	0.5	-0.5
3.5	2011	104-19	2.53	41	-2	4.7	5.3	15.0	15.1	14.0	2.57	39	2	4.9	5.5	15.0	14.9	13.0	0.04	-1	4	0.2	0.1	0.0	-0.2	-1.0
4.0	TBA	106-29	2.27	42	-6	3.5	4.7	20.5	19.8	17.8	2.40	42	-1	3.8	4.9	19.1	18.5	16.0	0.13	0	5	0.3	0.1	-1.4	-1.3	-1.8
4.0	2012	106-30	2.56	49	10	4.7	5.3	15.0	14.9	13.9	2.76	52	23	5.3	5.8	13.6	12.8	11.1	0.20	3	14	0.6	0.5	-1.4	-2.1	-2.8
4.0	2011	107-01	2.38	43	-2	3.9	5.0	18.4	17.9	16.0	2.55	45	7	4.2	5.3	16.8	16.1	13.6	0.17	2	8	0.4	0.3	-1.6	-1.8	-2.4
4.0	2010	107-05	2.52	47	6	4.2	5.3	14.6	14.4	13.6	2.53	44	9	4.3	5.3	15.9	15.4	13.4	0.00	-3	2	0.1	0.0	1.3	1.0	-0.2
4.5	TBA	108-28+	2.04	36	-1	3.0	4.2	22.5	21.6	19.8	2.19	37	7	3.4	4.3	22.4	21.2	18.2	0.15	1	8	0.3	0.1	-0.1	-0.4	-1.6
4.5	2011	108-31+	2.42	53	13	3.8	5.0	19.0	18.2	16.1	2.70	61	25	4.1	5.3	17.2	15.8	13.0	0.28	8	12	0.3	0.4	-1.8	-2.4	-3.1
4.5	2010	109-14+	2.39	49	7	3.5	5.0	17.0	16.7	15.3	2.49	48	12	3.7	5.1	17.5	16.8	14.2	0.10	-1	5	0.2	0.1	0.5	0.1	-1.1
4.5	2009	109-05+	2.33	49	7	3.2	4.8	18.1	17.9	16.3	2.43	48	11	3.4	4.8	18.6	17.9	15.2	0.09	-1	4	0.2	0.1	0.5	0.0	-1.1
5.0	TBA	110-12	1.89	31	1	2.7	3.9	25.1	24.0	22.0	2.24	46	21	3.3	4.2	23.8	22.0	18.8	0.35	14	19	0.5	0.3	-1.3	-2.0	-3.2
5.0	2010	111-16	2.48	56	23	3.8	5.0	17.1	16.5	14.9	2.74	66	37	4.1	5.3	16.4	15.1	12.5	0.26	10	13	0.3	0.3	-0.7	-1.4	-2.4
5.0	2009	110-30	2.33	54	19	3.1	4.6	19.3	18.8	17.1	2.56	61	29	3.4	4.8	19.1	17.7	14.9	0.24	7	10	0.2	0.2	-0.2	-1.1	-2.2
5.0	2005	111-04	2.18	40	17	3.4	4.3	19.2	18.4	16.8	2.43	53	32	3.6	4.6	18.3	16.7	14.5	0.25	14	15	0.3	0.3	-0.9	-1.7	-2.3
5.0	2004	111-14	2.19	37	18	3.5	4.4	17.5	17.0	15.6	2.57	57	43	4.3	4.8	14.6	13.7	12.1	0.38	20	25	0.7	0.5	-2.9	-3.3	-3.5
5.0	2003	111-18	2.18	35	18	3.6	4.4	17.0	16.3	14.9	2.57	56	44	4.3	4.8	13.8	12.7	11.3	0.39	21	25	0.7	0.5	-3.2	-3.6	-3.6
5.5	TBA	111-26	1.25	2	-26	1.6	3.4	30.6	29.3	27.1	1.81	33	6	2.3	3.7	27.7	25.8	23.0	0.55	31	31	0.7	0.3	-2.9	-3.5	-4.1
5.5	2008	111-26	1.58	21	-7	2.1	3.6	28.1	26.9	24.8	2.13	52	25	2.7	4.0	25.1	23.2	20.5	0.55	31	32	0.7	0.4	-3.0	-3.7	-4.3
5.5	2005	112-14	2.36	56	38	3.5	4.2	18.9	18.2	16.8	2.61	71	54	3.7	4.5	18.4	16.8	14.7	0.25	16	16	0.2	0.3	-0.5	-1.4	-2.1
5.5	2004	113-14	2.19	38	22	3.5	4.3	17.7	17.2	15.9	2.65	66	54	4.3	4.8	14.6	13.6	12.2	0.47	28	32	0.8	0.5	-3.1	-3.6	-3.7
5.5	2003	113-17	2.13	33	19	3.4	4.2	17.5	16.9	15.6	2.61	63	52	4.2	4.8	13.9	13.0	11.7	0.48	30	33	0.8	0.5	-3.6	-3.9	-3.9
6.0	TBA	113-00	1.40	5	-13	1.9	3.3	29.5	28.5	26.7	1.96	40	21	2.6	3.6	27.1	25.4	22.9	0.55	35	34	0.6	0.3	-2.4	-3.1	-3.8
6.0	2008	113-00	1.82	33	14	2.4	3.6	26.4	25.6	23.9	2.39	69	50	3.1	4.0	23.9	22.2	19.8	0.56	36	36	0.7	0.4	-2.5	-3.4	-4.1
6.0	2007	113-00	2.11	53	34	2.7	3.7	23.8	23.4	21.7	2.33	66	47	2.9	3.9	23.9	22.5	20.1	0.22	13	13	0.2	0.2	0.1	-0.9	-1.6
6.0	2006	113-08	2.12	52	34	2.7	3.8	23.0	22.6	20.9	2.44	72	54	3.1	4.1	22.3	20.9	18.5	0.33	20	20	0.4	0.3	-0.7	-1.7	-2.4
6.0	2004	114-12	2.34	54	43	3.5	4.1	17.8	17.7	16.6	2.89	90	82	4.3	4.7	14.7	13.9	12.5	0.56	36	38	0.8	0.6	-3.1	-3.8	-4.1
6.0	2003	114-28	2.18	39	30	3.5	4.1	17.9	17.6	16.5	2.80	82	74	4.3	4.7	13.9	13.2	11.9	0.62	42	44	0.8	0.6	-4.0	-4.4	-4.6
6.5	TBA	113-25	2.00	43	31	2.5	3.3	26.6	25.8	24.3	2.56	80	68	3.1	3.8	25.0	22.9	20.4	0.56	37	37	0.6	0.4	-1.6	-2.9	-3.9
6.5	2008	113-25	2.35	69	56	2.9	3.6	24.2	23.4	22.0	2.96	108	96	3.6	4.1	22.2	20.0	17.7	0.61	40	40	0.7	0.5	-2.0	-3.4	-4.3

Source: Barclays Research

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