

# Loan Transition Model Home Price Scenario Update

## Mortgage Index Models

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January 25, 2017

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## 1.0 Overview

At the close of business on Friday, January 27, 2017, we will update the non-agency RMBS calculator to incorporate recent changes to the Barclays home price scenarios. For more information about the home price scenario update, please refer to *Regional Home Price Model Scenario Update – 2016 Q2*. After the change, users will be able to access the current set of scenarios by setting “Non-Agency Model Version” to “Old Production” in the Preferences tab of the mortgage calculator.

## 2.0 Updated scenarios

Figure 1 displays online versus updated home price projections across scenarios for the US and key states. The new home price projections incorporate actual home prices through June 2016. The updated base case projection for 2016 US home price appreciation is 6.0%, compared with 3.6% previously. Base case projections for 2016 home price appreciation in Arizona, California, Florida, Nevada and New York are 6.5%, 6.6%, 8.0%, 8.0% and 4.9%, respectively, compared with 1.3%, 1.7%, 2.5%, 0.9% and 3.9% previously.

**Table 1 Changes to HPA scenarios for US and key states**

HPA Projections (% / year)												
	New						Old					
State	2016	2017	2018	2019	2020	2021-2025	2016	2017	2018	2019	2020	2021-2025
<b>Base + 20%</b>												
<b>US</b>	8.4	10.2	9.3	8.8	6.0	3.5	8.4	8.4	6.0	3.7	3.6	3.4
<b>AZ</b>	9.8	10.3	9.4	9.0	6.6	3.7	8.4	9.1	6.4	3.3	3.5	3.4
<b>CA</b>	10.6	11.9	9.2	9.6	8.4	3.9	10.0	10.4	6.7	3.0	3.3	3.5
<b>FL</b>	11.4	13.2	11.5	10.8	7.9	3.8	9.9	10.7	7.9	4.6	4.4	3.6
<b>NV</b>	11.2	10.3	8.7	8.1	5.5	3.7	7.1	7.1	5.0	2.9	3.4	3.5
<b>NY</b>	7.4	10.0	8.9	8.6	6.4	3.7	8.8	8.9	6.2	3.8	3.8	3.7
<b>Base + 10%</b>												
<b>US</b>	7.7	8.7	7.8	5.6	3.6	3.5	6.9	5.2	3.6	3.7	3.6	3.4
<b>AZ</b>	8.9	8.5	7.6	5.1	3.3	3.6	6.2	4.5	3.0	3.4	3.5	3.4
<b>CA</b>	9.4	9.8	7.6	5.3	4.1	3.8	7.5	5.1	2.8	3.1	3.4	3.5
<b>FL</b>	10.4	11.1	9.7	6.7	4.4	3.7	7.7	6.0	4.4	4.7	4.4	3.6
<b>NV</b>	10.3	8.5	6.7	4.1	2.5	3.7	5.2	3.0	1.9	2.9	3.4	3.5
<b>NY</b>	6.6	8.5	7.6	5.6	4.0	3.7	7.3	5.6	3.8	3.8	3.9	3.7
<b>Base</b>												
<b>US</b>	6.0	5.4	4.5	4.0	3.6	3.5	3.6	3.6	3.6	3.7	3.6	3.4
<b>AZ</b>	6.5	4.5	3.5	3.1	2.9	3.6	1.3	1.7	2.5	3.3	3.6	3.4
<b>CA</b>	6.6	5.1	3.9	3.0	2.7	3.7	1.7	1.9	2.3	3.0	3.4	3.5
<b>FL</b>	8.0	6.6	5.5	4.6	3.8	3.7	2.5	3.2	4.0	4.6	4.5	3.7
<b>NV</b>	8.0	4.5	2.2	2.1	2.6	3.7	0.9	0.8	1.7	2.8	3.5	3.5
<b>NY</b>	4.9	5.1	4.9	4.1	3.8	3.7	3.9	4	3.8	3.8	3.9	3.7
<b>Base - 10%</b>												
<b>US</b>	4.2	1.8	0.9	2.2	3.6	3.5	0.1	1.8	3.6	3.7	3.6	3.4
<b>AZ</b>	3.9	-0.3	-0.6	1.0	3.0	3.6	-3.4	-0.9	2.6	3.4	3.7	3.3
<b>CA</b>	3.6	0.0	-1.6	0.7	2.9	3.7	-3.9	-1.3	2.4	3.2	3.5	3.4
<b>FL</b>	5.2	1.6	0.5	2.0	3.8	3.7	-2.5	0.4	4.1	4.7	4.6	3.6
<b>NV</b>	5.5	-0.4	-1.6	-0.3	2.5	3.7	-3.6	-1.6	1.8	2.9	3.5	3.5
<b>NY</b>	3.2	1.7	0.7	2.5	3.8	3.7	0.2	2.0	3.8	3.8	3.9	3.7
<b>Base - 20%</b>												
<b>US</b>	3.1	-0.2	-1.1	-1.6	0.8	3.5	-2.0	-2.0	0.8	3.7	3.6	3.4
<b>AZ</b>	2.4	-3.0	-3.3	-4.4	-1.1	3.6	-6.1	-5.9	-1.3	3.4	3.7	3.3
<b>CA</b>	1.8	-3.2	-4.5	-5.0	-1.9	3.7	-7.2	-7.4	-2.3	3.1	3.6	3.4
<b>FL</b>	3.6	-1.3	-2.4	-3.4	-0.4	3.7	-5.3	-4.9	-0.1	4.7	4.6	3.6
<b>NV</b>	4.0	-3.0	-4.5	-5.8	-1.6	3.7	-6.2	-6.4	-1.8	2.9	3.5	3.5
<b>NY</b>	2.0	-0.3	-1.0	-0.9	1.3	3.7	-2.1	-2.1	0.7	3.8	3.9	3.7

**Table 1 Changes to HPA scenarios for US and key states**

HPA Projections (% / year)												
State	New						Old					
	2016	2017	2018	2019	2020	2021-2025	2016	2017	2018	2019	2020	2021-2025
<b>Down 20%</b>												
<b>US</b>	-2.6	-7.5	-5.6	-0.9	3.6	3.5	-5.6	1.2	3.6	3.7	3.6	3.4
<b>AZ</b>	-5.4	-13.0	-10.1	-3.9	2.6	3.6	-10.8	-1.9	2.4	3.3	3.8	3.3
<b>CA</b>	-7.4	-14.8	-11.3	-4.1	1.8	3.7	-13.5	-2.8	2.3	3.1	3.6	3.4
<b>FL</b>	-4.6	-12.0	-9.3	-2.6	3.6	3.8	-10.5	-0.8	3.8	4.6	4.7	3.6
<b>NV</b>	-3.4	-12.8	-11.9	-6.0	2.4	3.8	-11.1	-2.5	1.9	2.9	3.6	3.5
<b>NY</b>	-3.7	-7.5	-4.5	0.5	3.9	3.7	-6.0	1.1	3.7	3.8	3.9	3.7
<b>Down 30%</b>												
<b>US</b>	-2.6	-12.6	-10.0	-3.8	-3.4	2.9	-10.1	-3.8	-3.4	2.0	3.6	3.4
<b>AZ</b>	-5.4	-20.1	-17.0	-8.9	-9.6	2.3	-17.1	-9.3	-8.5	0.4	3.9	3.3
<b>CA</b>	-7.4	-23.2	-19.0	-9.8	-13.5	2.0	-21.8	-13.2	-13.1	-1.1	3.9	3.4
<b>FL</b>	-4.6	-19.6	-16.5	-7.7	-9.0	2.6	-17.2	-9.0	-8.3	1.3	4.9	3.6
<b>NV</b>	-3.4	-19.6	-18.9	-11.5	-9.8	2.6	-17.2	-9.5	-8.3	0.4	3.7	3.5
<b>NY</b>	-3.7	-12.7	-8.4	-1.6	-2.2	3.1	-10.9	-4.4	-4.0	2.0	3.9	3.7

Source CoreLogic, Bloomberg L.P, Barclays.

## 3.0 Projected losses

Figures 2 and 3 illustrate the net effect of the home price scenario update on projected defaults and losses. Projected base case default rates and losses are slightly lower, and alternative scenarios display larger deviations from the base case, consistent with the small increase in base case home price appreciation and wider dispersion in home prices across scenarios.

**Table 2 Projected cumulative defaults and losses, new HPA scenarios**

Sector	Issue Yr	UCLTV	Down 30%		Down 20%		Base - 20%		Base Case		Base + 20%	
			Dft	Loss	Dft	Loss	Dft	Loss	Dft	Loss	Dft	Loss
Jumbo Fixed 30Y	2004	47	15.0	8.3	12.5	6.0	10.6	4.6	9.4	3.7	9.0	3.2
	2005	63	27.0	16.6	21.6	11.3	16.9	7.8	14.3	5.8	13.2	4.8
	2006	74	37.2	24.2	30.4	17.2	23.6	11.9	19.5	8.6	17.9	7.1
	2007	76	40.3	26.2	33.1	18.8	25.5	13.1	20.9	9.5	19.0	7.8
Jumbo Hybrid	2004	47	12.6	6.4	10.2	4.4	8.4	3.3	7.4	2.5	6.9	2.2
	2005	62	21.3	12.4	16.2	7.8	12.4	5.2	10.4	3.7	9.7	3.1
	2006	70	32.7	19.8	25.1	12.6	18.8	8.0	15.4	5.4	14.0	4.3
	2007	72	41.9	26.1	32.8	17.1	24.5	11.1	19.6	7.5	17.7	6.0
AltA Fixed	2004	52	22.7	15.3	18.5	11.1	15.2	8.4	13.0	6.6	12.0	5.7
	2005	66	34.3	23.8	28.0	17.0	22.7	12.3	19.0	9.1	17.2	7.6
	2006	77	49.6	36.9	42.1	28.1	35.0	21.3	29.4	16.0	26.7	13.3
	2007	77	53.3	39.0	45.4	29.7	37.8	22.6	31.8	17.1	28.8	14.3
AltA Hybrid	2004	58	25.7	14.9	20.7	10.0	16.9	7.0	14.4	5.2	13.3	4.3
	2005	74	40.3	25.9	32.5	17.7	25.4	11.9	20.6	8.2	18.4	6.5
	2006	84	57.2	39.6	48.4	29.2	39.3	20.9	32.0	14.7	28.4	11.7
	2007	82	61.7	42.2	52.2	31.2	42.1	22.3	34.1	15.8	30.2	12.6
AltA NegAm	2004	56	32.6	18.1	26.3	11.6	21.9	7.8	18.9	5.4	17.5	4.4
	2005	66	44.9	29.0	36.2	19.4	29.7	13.4	25.2	9.6	23.2	7.7
	2006	77	58.3	40.1	48.8	28.6	40.6	20.5	34.2	14.6	31.1	11.7
	2007	78	60.1	40.2	50.4	28.8	41.6	20.4	34.5	14.3	31.2	11.3
Subprime 1st	2004	62	37.7	27.0	31.5	20.4	26.4	15.8	22.6	12.2	20.7	10.3
	2005	75	51.2	37.9	42.9	28.6	35.9	21.6	30.2	16.2	27.2	13.3
	2006	84	62.4	49.3	53.4	38.1	45.0	29.3	37.6	21.8	33.6	17.7
	2007	81	62.3	49.2	52.7	37.8	44.3	29.1	37.0	21.8	33.0	17.8
Subprime 2nd	2004	61	28.2	27.2	24.8	23.3	21.1	19.0	19.0	16.1	18.0	14.4
	2005	78	42.5	41.6	37.0	35.7	29.8	27.9	25.0	22.2	22.7	19.0
	2006	87	54.1	53.7	48.1	47.2	39.9	38.3	32.9	30.3	29.0	25.5
	2007	90	59.5	58.7	53.0	51.6	44.8	42.6	37.0	33.6	32.7	28.1
Second Lien	2004	62	13.7	12.8	11.3	10.4	8.9	7.9	7.9	6.5	7.4	5.8
	2005	75	30.5	29.3	26.1	24.8	20.3	18.9	16.8	15.0	15.1	12.9
	2006	83	33.2	32.0	28.4	27.1	22.0	20.6	17.3	15.6	15.1	13.0
	2007	84	36.0	34.5	30.4	28.8	23.2	21.5	17.8	15.9	15.3	13.0

Notes: Projections are as of November 2016 remittance reports for a sample of loans taken from each sector and issue year. Include balance forgiven, Base + 20% is up 20% relative to Base over 4 years, Base - 20% is down 20% relative to Base over 4 years, Down 20% is down 20% over 3 years, Down 30% is down 30% over 5 years.  
Source CoreLogic, Bloomberg L.P., Barclays.

**Table 3 Projected cumulative defaults and losses, online HPA scenarios**

Sector	Issue Yr	UCLTV	Down 30%		Down 20%		Base - 20%		Base Case		Base + 20%	
			Dft	Loss	Dft	Loss	Dft	Loss	Dft	Loss	Dft	Loss
Jumbo Fixed	2004	47	17.7	10.9	12.7	6.4	11.0	5.1	9.6	3.7	9.0	3.1
	2005	64	31.1	21.0	22.5	12.4	18.4	9.3	14.7	6.1	13.1	4.7
	2006	75	41.2	29.1	31.4	18.5	25.8	14.0	20.2	9.2	17.7	6.8
	2007	77	44.5	31.2	34.2	20.0	27.9	15.1	21.5	10.0	18.7	7.5
Jumbo Hybrid	2004	48	14.2	8.3	10.1	4.7	8.8	3.7	7.6	2.7	6.9	2.1
	2005	63	24.3	15.9	16.7	8.7	13.6	6.3	10.8	4.0	9.6	3.0
	2006	72	36.5	24.6	26.0	13.9	20.9	9.9	16.0	5.9	14.0	4.2
	2007	74	46.4	31.8	33.9	18.6	27.3	13.4	20.5	8.2	17.6	5.9
AltA Fixed	2004	52	24.6	18.0	18.1	11.3	15.8	9.1	13.3	6.8	12.1	5.7
	2005	67	36.7	27.6	27.9	17.6	24.0	13.9	19.6	9.6	17.3	7.5
	2006	78	51.7	41.2	41.7	28.7	36.7	23.6	30.3	16.8	26.7	13.2
	2007	77	55.8	43.6	45.1	30.4	39.8	25.0	32.7	17.9	28.7	14.1
AltA Hybrid	2004	59	27.8	18.2	20.5	10.7	18.0	8.3	14.9	5.5	13.4	4.3
	2005	76	42.4	30.1	32.3	18.6	27.8	14.3	21.7	8.9	18.4	6.4
	2006	86	59.4	44.9	48.1	30.3	42.3	24.3	33.5	15.9	28.4	11.5
	2007	84	64.4	48.1	52.1	32.4	45.7	25.9	35.8	17.1	30.2	12.5
AltA NegAm	2004	57	35.7	22.7	26.4	12.7	23.2	9.5	19.5	5.9	17.6	4.3
	2005	69	48.3	34.8	36.7	21.1	32.1	16.4	26.4	10.5	23.4	7.7
	2006	80	61.0	46.1	49.2	30.5	43.8	24.4	35.8	16.1	31.3	11.6
	2007	80	63.1	46.6	50.9	30.8	45.2	24.5	36.3	15.8	31.3	11.2
Subprime 1st	2004	60	38.4	29.4	29.9	20.0	26.9	16.7	22.9	12.4	20.8	10.3
	2005	73	52.4	41.7	41.7	28.7	37.4	23.8	31.0	16.8	27.3	13.2
	2006	83	63.8	53.4	52.2	38.4	47.1	32.2	38.7	22.7	33.7	17.6
	2007	80	63.7	53.1	51.5	37.9	46.1	31.7	37.9	22.6	33.1	17.7
Subprime 2nd	2004	62	32.2	31.6	26.0	24.8	22.9	21.2	19.4	16.8	17.9	14.4
	2005	77	46.5	46.1	38.0	37.0	33.1	31.6	25.8	23.2	22.1	18.4
	2006	87	57.6	57.5	48.7	48.0	43.3	42.1	33.7	31.4	28.1	24.6
	2007	89	62.2	61.8	53.3	52.1	47.8	46.0	37.8	34.7	31.5	27.0
Second Lien	2004	60	16.8	16.0	12.3	11.4	10.0	9.0	7.9	6.6	7.2	5.6
	2005	74	34.1	33.1	27.1	25.9	23.1	21.7	17.3	15.6	14.7	12.5
	2006	81	36.1	35.1	28.9	27.7	24.6	23.3	18.0	16.3	14.5	12.4
	2007	83	39.0	37.6	30.8	29.3	26.1	24.6	18.5	16.7	14.6	12.3

Notes: Projections are as of November 2016 remittance reports for a sample of loans taken from each sector and issue year, include balance forgiven, Base + 20% is up 20% relative to Base over 4 years, Base - 20% is down 20% relative to Base over 4 years, Down 20% is down 20% over 3 years, Down 30% is down 30% over 5 years.  
Source CoreLogic, Bloomberg L.P., Barclays.

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