

## Report Overview

The loan prepayment values provided in this report are industry level benchmarks customized to incorporate your institution's current refinance advantage (coupon rate - new volume rate) by category. They can be used as behavior inputs for analyses of earnings at risk and equity at risk positions. Values are category specific, future prepayment outcomes by interest rate scenario, based on statistical analyses of historical prepayment data from a nationally diverse group of financial institutions. Contractual maturity loan categories can and often do pay off prior to their defined maturity date. Prepayments are defined as full loan payoff prior to final maturity date and are forecasted for the eight loan categories identified below.

Loan Category (Long)	Loan Category (Short)	Loan Category (Long)	Loan Category (Short)
Consumer Real Estate Fixed	Cons RE F	Agricultural Fixed	AG F
Consumer Fixed	Cons F	Commercial Real Estate Fixed	Comm RE F
Auto New Fixed	Auto New	Commercial Fixed	Comm F
Auto Used Fixed	Auto Used	Construction/Land Fixed	Const F

Category level time series were created by MountainView from record-level loan information from a geographically diverse sample of MountainView client banks and credit unions. The data includes coupon rates, new volume rates, and prepayments by month. Data was aggregated into overall histories of prepayments by category, augmented by indicators of seasonality, economic conditions, and other influences. The peer prepayment information provides a clear view of typical prepayment activity over periods of both rising and declining interest rate environments.

Based on the time series data, a simultaneous equation system was statistically derived using the patented Advanced Assessment Methodology. The estimated equations system identifies and quantifies the influences that contributed to historic prepayment behaviors and outcomes. The equations are the basis for forecasting future category level loan behaviors in Base Case and a range of -300 bp to +500 bp rate shock scenarios, in 100 bp increments. Prepayment inputs forecast are time period and rate scenario specific by loan category.

Monthly (SMM) and annual (CPR) prepayment data is provided for each loan category by rate scenario for years 1, 2, and 3. Prepayment inputs in later years are the same as the 3-year values. See the table on next page as the example. Detailed time period specific prepayment inputs are presented in report tabs SMM\_M, SMM\_A, and CPR. Custom user inputs are documented below.

User Inputs	Cons RE F	Cons F	Auto New	Auto Used	AG F	Comm RE F	Comm F	Const F
Coupon/Portfolio Rate	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
New Volume Rate	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
New Vol - Coupon	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

*Source: Subscriber input to the MountainView website. If new volume and portfolio rates are not submitted the model defaults to the end of period rates used in the statistical estimations.*

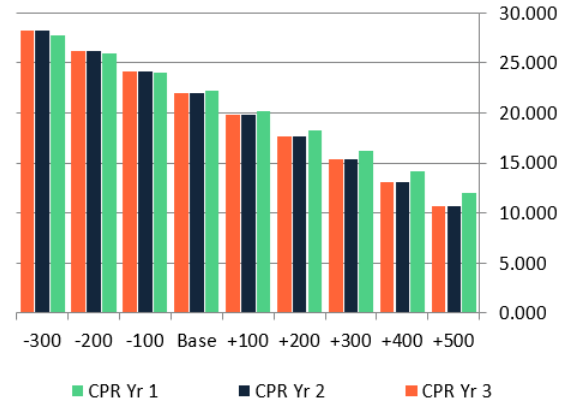
The Base Case loan prepayment estimates produced by this report compare favorably to the recent actual historical experience of the sample financial institutions. Prepayment estimates are thus deemed to be accurate in Base Case. Prepayments across scenarios depict expected behaviors. Most categories have the expected indirect prepayment relations with interest rates (prepayments decline as rates rise).

As with any non-contractual interest rate risk (IRR) model input, best practice is to periodically back test model inputs compared to recent actual institution specific experience. Provide a report to ALCO and a synopsis to the board in order to properly document input quality.

**Tuning Factor Capability:** Each loan category has the capability for tuning factor overrides. Please note the green input areas in the results to the right. The subscriber has the ability to override prepayment with current average prepayment activity. If 12-month average actual prepayment activity is available, and varies from the results found to the right, then an override (in green input areas) can be made to tune the prepayment results. Each rate shock will scale the original forecasted results based on the input made.

**Category Level SMM/CPR Profile**

Cons RE F	12 Month Average					
	SMM Yr 1	SMM Yr 2	SMM Yr 3	CPR Yr 1	CPR Yr 2	CPR Yr 3
+500	1.059	0.933	0.933	11.997	10.642	10.642
+400	1.261	1.157	1.157	14.124	13.030	13.030
+300	1.462	1.380	1.380	16.204	15.359	15.359
+200	1.664	1.603	1.603	18.237	17.631	17.631
+100	1.865	1.827	1.827	20.226	19.846	19.846
<b>Base</b>	<b>2.067</b>	<b>2.050</b>	<b>2.050</b>	<b>22.170</b>	<b>22.007</b>	<b>22.007</b>
-100	2.269	2.273	2.273	24.070	24.114	24.114
-200	2.470	2.497	2.497	25.928	26.169	26.169
-300	2.672	2.720	2.720	27.744	28.173	28.173



**Tuning factor**  [12 month actual experience tuning factor (as SMM)]

*This profile is provided for all categories, which are not included in this sample.*

SAMPLE

### Category Level Projected SMM/CPR Vectors

#### Prepayment - SMM: Monthly

SMM	Mo 1	Mo 2	Mo 3	Mo 4	Mo 5	Mo 6	Mo 7	Mo 8	Mo 9	Mo 10	Mo 11	Mo 12	...
Consumer RE F (UP 500)	2.2247	1.1216	0.9608	0.9373	0.9339	0.9334	0.9333	0.9333	0.9333	0.9333	0.9333	0.9333	...
Consumer RE F (UP 400)	2.2247	1.3124	1.1794	1.1600	1.1571	1.1567	1.1567	1.1567	1.1567	1.1567	1.1567	1.1567	...
Consumer RE F (UP 300)	2.2247	1.5031	1.3979	1.3826	1.3804	1.3800	1.3800	1.3800	1.3800	1.3800	1.3800	1.3800	...
Consumer RE F (UP 200)	2.2247	1.6939	1.6165	1.6052	1.6036	1.6033	1.6033	1.6033	1.6033	1.6033	1.6033	1.6033	...
Consumer RE F (UP 100)	2.2247	1.8847	1.8351	1.8279	1.8268	1.8267	1.8266	1.8266	1.8266	1.8266	1.8266	1.8266	...
Consumer RE F (Base)	2.2247	2.0754	2.0537	2.0505	2.0500	2.0500	2.0500	2.0500	2.0500	2.0500	2.0500	2.0500	...
Consumer RE F (DN 100)	2.2247	2.2662	2.2722	2.2731	2.2733	2.2733	2.2733	2.2733	2.2733	2.2733	2.2733	2.2733	...
Consumer RE F (DN 200)	2.2247	2.4570	2.4908	2.4958	2.4965	2.4966	2.4966	2.4966	2.4966	2.4966	2.4966	2.4966	...
Consumer RE F (DN 300)	2.2247	2.6477	2.7094	2.7184	2.7197	2.7199	2.7199	2.7199	2.7199	2.7199	2.7199	2.7199	...

#### Prepayment - SMM: Annual Average

SMM_A	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	...
Consumer RE F (UP 500)	1.0593	0.9333	0.9333	0.9333	0.9333	0.9333	0.9333	0.9333	0.9333	0.9333	...
Consumer RE F (UP 400)	1.2608	1.1567	1.1567	1.1567	1.1567	1.1567	1.1567	1.1567	1.1567	1.1567	...
Consumer RE F (UP 300)	1.4624	1.3800	1.3800	1.3800	1.3800	1.3800	1.3800	1.3800	1.3800	1.3800	...
Consumer RE F (UP 200)	1.6639	1.6033	1.6033	1.6033	1.6033	1.6033	1.6033	1.6033	1.6033	1.6033	...
Consumer RE F (UP 100)	1.8655	1.8266	1.8266	1.8266	1.8266	1.8266	1.8266	1.8266	1.8266	1.8266	...
Consumer RE F (Base)	2.0670	2.0500	2.0500	2.0500	2.0500	2.0500	2.0500	2.0500	2.0500	2.0500	...
Consumer RE F (DN 100)	2.2685	2.2733	2.2733	2.2733	2.2733	2.2733	2.2733	2.2733	2.2733	2.2733	...
Consumer RE F (DN 200)	2.4701	2.4966	2.4966	2.4966	2.4966	2.4966	2.4966	2.4966	2.4966	2.4966	...
Consumer RE F (DN 300)	2.6716	2.7199	2.7199	2.7199	2.7199	2.7199	2.7199	2.7199	2.7199	2.7199	...

#### Prepayment - CPR

CPR	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	...
Consumer RE F (UP 500)	11.9966	10.6425	10.6425	10.6425	10.6425	10.6425	10.6425	10.6425	10.6425	10.6425	...
Consumer RE F (UP 400)	14.1238	13.0300	13.0300	13.0300	13.0300	13.0300	13.0300	13.0300	13.0300	13.0300	...
Consumer RE F (UP 300)	16.2038	15.3589	15.3589	15.3589	15.3589	15.3589	15.3589	15.3589	15.3589	15.3589	...
Consumer RE F (UP 200)	18.2374	17.6305	17.6305	17.6305	17.6305	17.6305	17.6305	17.6305	17.6305	17.6305	...
Consumer RE F (UP 100)	20.2258	19.8461	19.8461	19.8461	19.8461	19.8461	19.8461	19.8461	19.8461	19.8461	...
Consumer RE F (Base)	22.1697	22.0070	22.0070	22.0070	22.0070	22.0070	22.0070	22.0070	22.0070	22.0070	...
Consumer RE F (DN 100)	24.0702	24.1143	24.1143	24.1143	24.1143	24.1143	24.1143	24.1143	24.1143	24.1143	...
Consumer RE F (DN 200)	25.9280	26.1694	26.1694	26.1694	26.1694	26.1694	26.1694	26.1694	26.1694	26.1694	...
Consumer RE F (DN 300)	27.7440	28.1733	28.1733	28.1733	28.1733	28.1733	28.1733	28.1733	28.1733	28.1733	...

Above vectors are provided for all the categories, which are not included in this sample.

Note: MVRA also provides various templates/guides on implementation in different ALM systems.