

To: Vector Securities Clients
Date: February 2017
Re: Release Memo for Vector Securities

What's new in Vector Securities?

With this release, the following new data elements and/or features are now available:

- New TransUnion Credit Risk Indicators derived AT33 (total current balance of all revolving accounts) and AT57 (total balance past due on all open revolving accounts) percent change 1, 3, 6, 12, and 24 months ago metrics.
- New TransUnion Credit Risk Indicators derived FICO Pct Chg (Orig to Curr) and (Orig to Payoff) metrics.
- New TransUnion Credit Risk Indicators derived FICO at Payoff metrics.
- New TransUnion Credit Risk Indicators derived Borrower Cnt attribute and metric.
- New TransUnion Credit Risk Indicators derived BORROWER_ID Cum Cnt attributes.
- New TransUnion Credit Risk Indicators derived Multi Borrower Flag attribute.
- New TransUnion Credit Risk Indicators derived B2_BORROWER_ID Pct Cnt metric.
- New DLQ Hist 12m, 24m, and Life attributes using the OTS method for delinquency assessment.
- New NPL Flag attribute.
- New Payoff Bal metric.
- New Loss Severity 6m metric.
- New MSPT (Master Static Passthrough) and PT (Dynamic Passthrough) metrics and object folder.

Refer to the following sections for more information.

CoreLogic Client Services Team

Contact your Client Services representative if you have additional questions.

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New B1 and B2 AT33 1, 3, 6, 12, and 24 Mo. Pct Chg TU CRI metrics in Design Mode

In an effort to further enhance the flexibility of the combined CoreLogic and TransUnion CRI offering for the non-agency RMBS data, CoreLogic continues to make available on per case basis new derived metrics. The latest in this series makes available the per B1 and B2 borrower relative change in total current balance of all open revolving accounts (i.e. AT33) assigned on a per non-agency RMBS loan basis. To qualify in this calculation, a given account must have been updated within the last 12 months for the period in the report and the relative period corresponding to 1, 3, 6, 12, or 24 months ago. These metrics are placed in the existing TransUnion CRI metrics subfolder in Design Mode.

Note: TransUnion CRI access is available only to subscribing clients. If interested in the TransUnion CRI module, consult your nearest account manager for details.

REPORT DETAILS					
Report Filter: {Data Period} = 335 - November 2016) And ({Active Flag} = Y)					
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Deal	B1 AT33 Pct Chg 1m	B1 AT33 Pct Chg 3m	B1 AT33 Pct Chg 6m	B1 AT33 Pct Chg 12m	B1 AT33 Pct Chg 24m
1st Frkln01-1(OP1)	1.42%	5.94%	13.03%	(19.08%)	(514.03%)
1st Frkln01-FF2	0.63%	(57.49%)	(62.98%)	9.08%	(76.21%)
1st Frkln02-FF1	(4.90%)	(5.24%)	(12.42%)	(20.56%)	(1750.75%)
1st Frkln02-FF2	3.47%	0.55%	(6.71%)	(6.54%)	(21.07%)
1st Frkln02-FF3	2.00%	(28.86%)	(35.37%)	(31.19%)	(31.84%)
1st Frkln02-FF4	(0.95%)	(0.92%)	(9.52%)	(154.76%)	(174.85%)
1st Frkln02-FFA	0.24%	(0.32%)	1.08%	6.16%	(11.61%)
1st Frkln03-FF1	(0.26%)	2.33%	(1.59%)	1.45%	(11.23%)
1st Frkln03-FF2	(2.67%)	(5.86%)	(7.61%)	(216.62%)	(178.09%)
1st Frkln03-FF3	(11.58%)	(27.83%)	(31.33%)	(90.71%)	(107.22%)

New B1 and B2 AT57 1, 3, 6, 12, and 24 Mo. Pct Chg TU CRI metrics in Design Mode

In addition to the above mentioned AT33 set of derived new percent change metrics for the TransUnion CRI, the per B1 and B2 borrower relative change in total balance past due on all open revolving accounts (i.e. AT57) assigned on a per non-agency RMBS loan basis are made available as well. To qualify in this calculation, a given account must have been updated within the last 12 months for the period in the report and the relative period corresponding to 1, 3, 6, 12, or 24 months ago. These metrics are placed in the existing TransUnion CRI metrics subfolder in Design Mode.

Note: TransUnion CRI access is available only to subscribing clients. If interested in the TransUnion CRI module, consult your nearest account manager for details.

REPORT DETAILS										
Report Filter: (Data Period) = 335 - November 2016) And (Active Flag) = Y)										
1 2 3 4 5 of 55 pages										
Deal	B1 AT57 Pct Chg 1m	B1 AT57 Pct Chg 3m	B1 AT57 Pct Chg 6m	B1 AT57 Pct Chg 12m	B1 AT57 Pct Chg 24m					
1st Frkln01-1(OP1)	(12.30%)	(24.39%)	7.26%	(365.71%)	(259.82%)					
1st Frkln01-FF2	30.18%	(59.09%)	6.82%	(79.49%)	(195.68%)					
1st Frkln02-FF1	(3.32%)	18.01%	5.81%	36.78%	(24.58%)					
1st Frkln02-FF2	4.06%	29.81%	(40.44%)	(4.07%)	(77.24%)					
1st Frkln02-FF3	22.61%	(27.31%)	(210.29%)	(137.72%)	(319.11%)					
1st Frkln02-FF4	6.80%	(46.63%)	(33.48%)	26.23%	(294.50%)					
1st Frkln02-FFA	12.44%	37.22%	32.33%	23.63%	(26.23%)					
1st Frkln03-FF1	5.87%	15.35%	6.42%	(15.27%)	29.48%					
1st Frkln03-FF2	10.71%	(1.91%)	(25.82%)	(17.29%)	(78.75%)					
1st Frkln03-FF3	(161.42%)	(391.97%)	(371.56%)	(305.48%)	(425.24%)					
1st Frkln03-FF4	5.30%	25.12%	(85.36%)	87.11%	(339.34%)					

New B1 and B2 FICO Pct Chg (Orig to Curr) and (Orig to Payoff) TU CRI metrics in Design Mode

In our previous release, we introduced the new FICO 1, 6, and 12 Mo. Pct Chg TransUnion CRI metrics. As a follow up to this, CoreLogic is adding a set of B1 and B2 FICO Pct Chg metrics based on the FICO change from origination to the relative data period in time and also relative to the payoff period. The at origination FICO is retrieved in priority order from either the MSTR static at origination issuance file from the associated security to the underlying loan or the TransUnion CRI data itself (i.e. when there's no available FICO in the MSTR file and the origination date is within the default 10 years of TransUnion CRI history available). Likewise, the FICO from the relative data period in time and upon loan payoff is retrieved from the TransUnion CRI data itself or from the new supplemental PT (passthrough) data (i.e. when there's no available FICO from TransUnion). These metrics are placed in the existing TransUnion CRI metrics subfolder in Design Mode.

Note: TransUnion CRI access is available only to subscribing clients. If interested in the TransUnion CRI module, consult your nearest account manager for details. ***In addition, FICO scores are only available to TransUnion CRI subscribing clients that also subscribe to the FICO module.***

REPORT DETAILS		
Report Filter: ({Data Period} = 335 - November 2016) And (Datatype = MBS) And ({Active Flag} = Y)		
1 2 3 4 5 of 2472 pages		
Loan ID	B1 FICO Pct Chg (Orig to Curr)	B2 FICO Pct Chg (Orig to Curr)
aDLXKt	32.15%	
MghhwJ	32.05%	14.47%
BBXqvZ	31.52%	15.29%
qBlZwf	30.22%	
zBTDKy	29.16%	6.96%
BXutbb	29.14%	26.66%
HfaAPs	29.06%	

REPORT DETAILS		
Report Filter: ({Data Period} = 335 - November 2016) And (Datatype = MBS) And ({Payoff Period} = 335 - November 2016)		
1 2 3 4 5 of 47 pages		
Loan ID	B1 FICO Pct Chg (Orig to Paidoff)	B2 FICO Pct Chg (Orig to Paidoff)
XEDBfQ	(28.53%)	
aGShvQ	(27.57%)	(17.30%)
iBBKpV	(26.18%)	
rKrucC	(22.68%)	
nmYVFV	(21.60%)	(13.53%)
aKHedt	(19.66%)	(14.92%)
CIDpaK	(18.69%)	(18.60%)
FJMNmE	(18.51%)	

New B1 and B2 FICO at Payoff TU CRI metrics in Design Mode

The B1 and B2 FICO at Payoff are the values used for the B1 and B2 FICO Pct Chg (Orig to Payoff) TransUnion CRI metrics. These values are generated from the TransUnion CRI data itself or from the new supplemental PT (passthrough) data (i.e. when there's no available FICO from TransUnion) at the payoff period for the loan. These metrics are placed in the existing TransUnion CRI metrics subfolder in Design Mode.

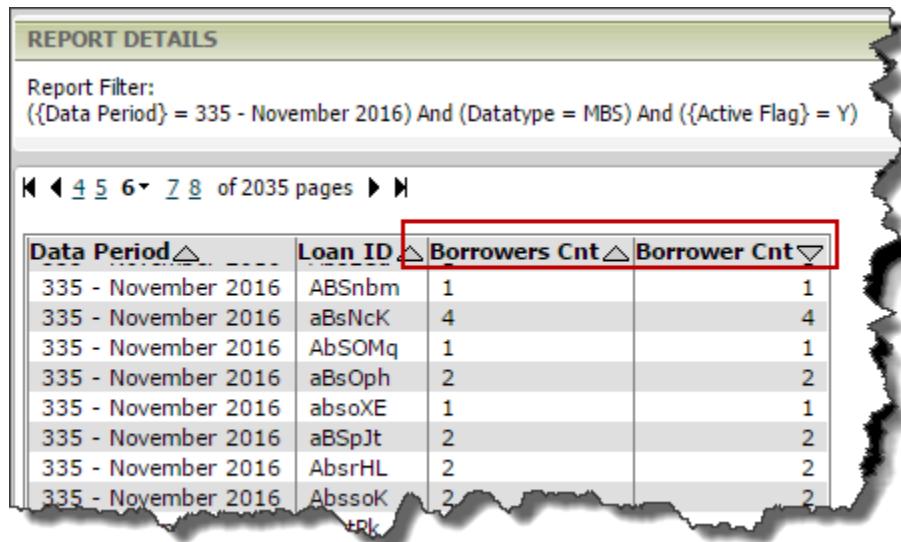
Note: TransUnion CRI access is available only to subscribing clients. If interested in the TransUnion CRI module, consult your nearest account manager for details. ***In addition, FICO scores are only available to TransUnion CRI subscribing clients that also subscribe to the FICO module.***

REPORT DETAILS			
Report Filter: (Datatype = MB5) And ({Payoff Period} = 335 - November 2016) And ({Data Period} = 335 - Nov			
1 2 3 4 5 of 47 pages			
Data Period	Loan ID	B1 FICO at Payoff	B2 FICO at Payoff
335 - November 2016	aACXmA	717	759
335 - November 2016	aAdvPJ	746	816
335 - November 2016	aaKDvR	793	833
335 - November 2016	AaITGP	841	823
335 - November 2016	AaXqmk		
335 - November 2016	aayNFJ	724	
335 - November 2016	AAZirA	840	
335 - November 2016	abazDZ		788
335 - November 2016	ABcpfd	830	835
335 - November 2016	AbIOkA	679	683
335 - November 2016	AbjMae		
335 - November 2016	abM-T		

New Borrower Cnt TU CRI attribute and metric in Design Mode

The new Borrower Cnt represents the number of assigned borrowers to a given loan relative to the data period on a report. By default, Vector Securities only reports on the first two prioritized borrowers as B1 or B2 for the various attributes and metrics in the respective TransUnion CRI folders. The Borrower Cnt enables the end user to filter and trend for specific Borrower Cnt when used as an attribute. The Borrower Cnt metric can be used for aggregation purposes across different levels of analysis. The attribute and metric are placed in the existing TransUnion CRI attribute and metric subfolders respectively in Design Mode.

Note: TransUnion CRI access is available only to subscribing clients. If interested in the TransUnion CRI module, consult your nearest account manager for details.



REPORT DETAILS

Report Filter:
(({Data Period} = 335 - November 2016) And (Datatype = MBS) And ({Active Flag} = Y))

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Data Period	Loan ID	Borrowers Cnt	Borrower Cnt
335 - November 2016	ABSnbm	1	1
335 - November 2016	aBsNcK	4	4
335 - November 2016	AbSOMq	1	1
335 - November 2016	aBsOph	2	2
335 - November 2016	absoXE	1	1
335 - November 2016	aBSpJt	2	2
335 - November 2016	AbsrHL	2	2
335 - November 2016	Abssok	2	2

New B1 and B2 BORROWER_ID Cum Cnt TU CRI attributes in Design Mode

The new B1 and B2 BORROWER_ID Cum Cnt attributes isolate relative to the data period in the report for the number of times a given B1 and B2 borrower had multiple assignments for BORROWER_ID. By default, Vector Securities only reports on the first two prioritized borrowers as B1 or B2 for the various attributes and metrics in the respective TransUnion CRI folders. At times, a given BORROWER_ID for a given loan can have its ID change for the B1 and/or B2 assignment as a result of the ongoing monthly matching between the non-agency RMBS loans and the TransUnion record. The B1 and B2 BORROWER_ID Cum Cnt attributes allow the end user to isolate for uniqueness of the BORROWER_ID assignment over time for B1 and B2. The attributes are placed in the existing TransUnion CRI attribute subfolder in Design Mode.

Note: TransUnion CRI access is available only to subscribing clients. If interested in the TransUnion CRI module, consult your nearest account manager for details.

Data Period	Loan ID	B1_BORROWER_ID	B1_BORROWER_ID Cum Cnt
314 - February 2015	wdasnI	5UNNUGTRNHNN3	4
313 - January 2015	wdasnI	5UNNUGTRNHNN3	4
312 - December 2014	wdasnI	5UNNUGTRNHNN3	4
311 - November 2014	wdasnI	5UNNUGTRNHNN3	4
310 - October 2014	wdasnI	5UNNUGTRNHNN3	4
309 - September 2014	wdasnI	N3NR5RB3JHNNN	3
308 - August 2014	wdasnI	N3NR5RB3JHNNN	3
307 - July 2014	wdasnI	N3NR5RB3JHNNN	3
306 - June 2014	wdasnI	N3NR5RB3JHNNN	3
305 - May 2014	wdasnI	N3NR5RB3JHNNN	3
304 - April 2014	wdasnI	N3NR5RB3JHNNN	3
303 - March 2014	wdasnI	N3NR5RB3JHNNN	3
302 - February 2014	wdasnI	N3NR5RB3JHNNN	3
301 - January 2014	wdasnI	N3NR5RB3JHNNN	3
300 - December 2013	wdasnI	N3NR5RB3JHNNN	3
299 - November 2013	wdasnI	N3NR5RB3JHNNN	3
298 - October 2013	wdasnI	VMN6GYU67HNNF	2
297 - September 2013	wdasnI	VMN6GYU67HNNF	2
296 - August 2013	wdasnI	VMN6GYU67HNNF	2
295 - July 2013	wdasnI	VMN6GYU67HNNF	2
294 - June 2013	wdasnI	VMN6GYU67HNNF	2
293 - May 2013	wdasnI	VMN6GYU67HNNF	2
292 - April 2013	wdasnI	VMN6GYU67HNNF	2
291 - March 2013	wdasnI	VMN6GYU67HNNF	2
290 - February 2013	wdasnI	VMN6GYU67HNNF	2
289 - January 2013	wdasnI	VMN6GYU67HNNF	2
287 - November 2012	wdasnI	33YNJTVRNHN5N	1
286 - October 2012	wdasnI	33YNJTVRNHN5N	1
285 - September 2012	wdasnI	33YNJTVRNHN5N	1

New B1 and B2 Multi Borrower Flag TU CRI attribute in Design Mode

Similar to the new B1 and B2 BORROWER_ID Cum Cnt attributes, the TransUnion CRI based B1 and B2 Multi Borrower Flags help to quickly isolate in a binary 1 (Yes) or 0 (No) fashion relative to the data period in the report for the instances of loans having a case of multiple borrowers being assigned for a given B1 or B2 slot. By default, Vector Securities only reports on the first two prioritized borrowers as B1 or B2 for the various attributes and metrics in the respective TransUnion CRI folders. At times, a given BORROWER_ID for a given loan can have its ID change for the B1 and/or B2 assignment as a result of the ongoing monthly matching between the non-agency RMBS loans and the TransUnion record. The attributes are placed in the existing TransUnion CRI attribute subfolder in Design Mode.

Note: TransUnion CRI access is available only to subscribing clients. If interested in the TransUnion CRI module, consult your nearest account manager for details.

Data Period ▲	Loan ID ▲	B1_BORROWER_ID ▲	B1_Multi Borrower Flag ▲
314 - February 2015	wdasnI	5UNNUGTRNHNN3	1
313 - January 2015	wdasnI	5UNNUGTRNHNN3	1
312 - December 2014	wdasnI	5UNNUGTRNHNN3	1
311 - November 2014	wdasnI	5UNNUGTRNHNN3	1
310 - October 2014	wdasnI	5UNNUGTRNHNN3	1
309 - September 2014	wdasnI	N3NR5RB3JHNNN	1
308 - August 2014	wdasnI	N3NR5RB3JHNNN	1
307 - July 2014	wdasnI	N3NR5RB3JHNNN	1
306 - June 2014	wdasnI	N3NR5RB3JHNNN	1
305 - May 2014	wdasnI	N3NR5RB3JHNNN	1
304 - April 2014	wdasnI	N3NR5RB3JHNNN	1
303 - March 2014	wdasnI	N3NR5RB3JHNNN	1
302 - February 2014	wdasnI	N3NR5RB3JHNNN	1
301 - January 2014	wdasnI	N3NR5RB3JHNNN	1
300 - December 2013	wdasnI	N3NR5RB3JHNNN	1
299 - November 2013	wdasnI	N3NR5RB3JHNNN	1
298 - October 2013	wdasnI	N3NR5RB3JHNNN	1

Note: TransUnion CRI access is available only to subscribing clients. If interested in the TransUnion CRI module, consult your nearest account manager for details.

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New NPL Flag attribute in Design Mode

The new NPL Flag isolates for active loans (or current period paidoff) in an MBA delinquency method status of 60 or 90 days late or in an exception status of foreclosure or REO relative to the data period in the report. This can be useful for quickly assessing volumes for active NPL loans for a given data period. This attribute is placed in the existing attributes subfolder in Design Mode.

Data Period ▲	NPL Flag ▲	Percent to Grand Total (Active Loan Cnt) ▼
335 - November 2016	No	82.86%
335 - November 2016	No Data	1.29%
335 - November 2016	Unknown	0.00%
335 - November 2016	Yes	15.85%

New Payoff Bal metric in Design Mode

Along with the previously released Payoff Bal attribute and Payoff Bal Monthly metric, the new Payoff Bal metric is made available and captures the cumulative investor balance from the prior period to the loan being assigned as paidoff relative to the data period in the report. This can be useful for quickly assessing cumulative payoff balance volumes across different aggregation levels for a given data period. This metric is placed in the existing metrics subfolder in Design Mode.

Data Period ▲	Datatype ▲	Payoff Bal ▼
335 - November 2016	ALT A	1,311,722,040,569
335 - November 2016	BC	1,746,802,369,079
335 - November 2016	MBS	1,401,592,950,594

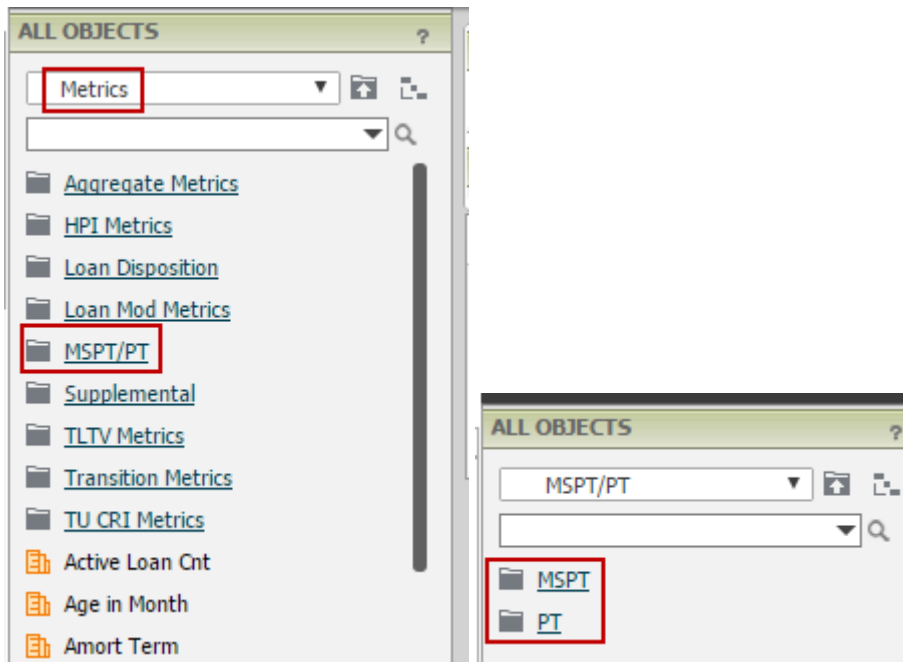
New Loss Severity 6m metric in Design Mode

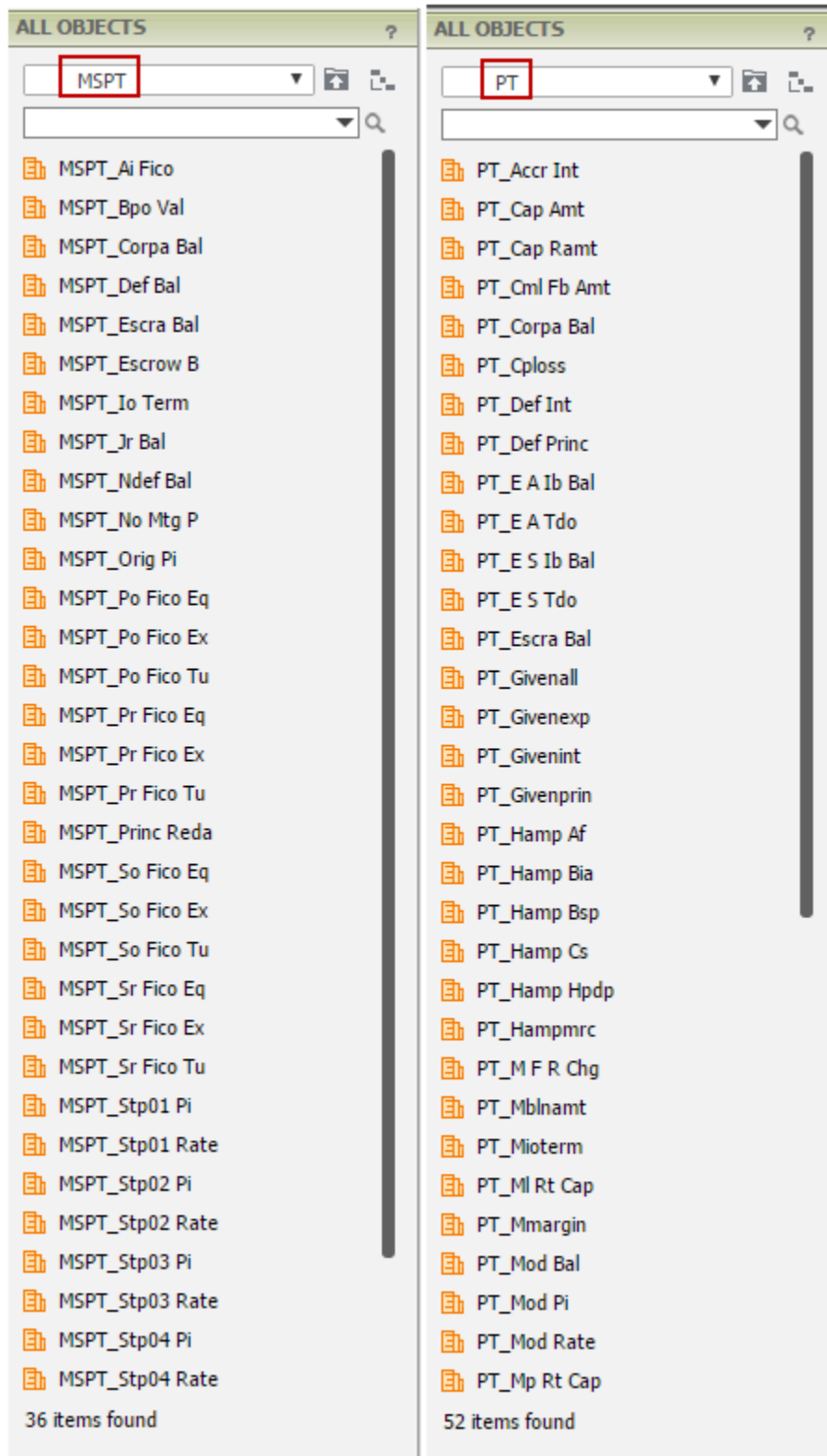
Along with the previously released Loss Severity and Loss Severity 3m metrics, the new Loss Severity 6m metric is made available and captures relative to the data period on the report the ratio of the cumulative loss amounts for the previous 6 periods against the cumulative payoff balances for the same previous 6 periods. This can be useful for quickly assessing longer 6 month runs of cumulative severity across different aggregation levels for a given data period. This metric is placed in the existing metrics subfolder in Design Mode.

Data Period ▲	Datatype ▲	Payoff Bal ▼	Loss Severity ▼	Loss Severity 3m ▼	Loss Severity 6m ▼
335 - November 2016	ALT A	1,311,722,040,569	55.97%	55.80%	54.41%
335 - November 2016	BC	1,746,802,369,079	67.80%	71.13%	70.34%
335 - November 2016	MBS	1,401,592,950,594	40.28%	35.35%	32.45%

New MSPT (Master Static Passthrough) and PT (Dynamic Passthrough) metrics and object folder in Design Mode

In our July 2016 release, CoreLogic introduced the MSPT and PT series of attributes. With this latest release, we're introducing a select set of the same MSPT and PT fields as metrics where appropriate. The chosen fields are ones where a sum, count, or average form of aggregation on a measure or value is possible. Just like for the MSPT and PT attributes, the select MSPT and PT metrics are placed into their own dedicated MSPT and PT subfolders within the existing metrics subfolder in Design Mode.





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