Available PC Disclosure Calculations

Following are the loan- and pool-level disclosure calculations for single-family fixed-rate and adjustable-rate mortgage (ARM) Participation Certificate (PC) securities. Some of these calculations incorporate assumptions as to permitted mortgage characteristics and variables therein. As a result, in some cases the application of these calculations could result in minor differences between the actual characteristics of a given mortgage and the reported characteristics.


The following disclosure calculations are divided into two sections:

PC Inception Disclosure Calculations: Outlines the disclosure calculations for PCs at inception.

Monthly PC Disclosure Calculations: Outlines the calculations for monthly PC disclosures.

### PC Inception Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Score</td>
<td>A number, prepared by third parties, summarizing the borrower's creditworthiness, which may be indicative of the likelihood that the borrower will timely repay future obligations.</td>
<td>• If credit score is &lt; 300 or &gt; 850, the credit score will be disclosed as “Unknown,” which will be indicated by a blank space.</td>
</tr>
</tbody>
</table>
| Weighted Average Credit Score | The weighted average, as of the note date, of the borrowers' credit scores for the mortgages in a PC pool. The WA Credit Score consists of known credit scores as of the settlement date of the PC and the first month update after the settlement date may reflect additional known credit scores. | WA Credit Score =  
\[
\frac{\sum_{i=1}^{n} \left( \frac{\text{Credit Score}_i \times \text{Investor UPB}_i}{\text{Investor UPB}_i} \right)}{\sum_{i=1}^{n} \text{Investor UPB}_i}
\]
\[
\text{OR}
\]
\[
\text{WA Credit Score} = \frac{\text{Sum (Credit Score) \times (Investor UPB))}}{\text{Sum (Investor UPB))}}
\]
• Round to the nearest integer.
• If credit score is < 300 or > 850, the loan is excluded from the WA Credit Score calculation. |
### PC Inception Disclosure Calculations

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<th>VARIABLE NAME</th>
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<tbody>
<tr>
<td>Updated Credit Score</td>
<td>In the case of a Reinstated Mortgage, the updated credit score is a number prepared by third parties, summarizing the borrower’s creditworthiness, which may be indicative of the likelihood that the borrower will timely repay future obligations. For Reinstated Mortgages, a new credit score is collected, as of PC Issuance, consistent with the process used to underwrite the Reinstated Mortgages originally.</td>
<td>- If credit score is &lt; 300 or &gt; 850, the Updated Credit Score will be disclosed as “Unknown,” which will be indicated by a blank space.</td>
</tr>
</tbody>
</table>
| Weighted Average Updated Credit Score | In the case of Reinstated PCs, the weighted average of the borrowers’ updated credit scores as of the Reinstated Mortgage PC Pool issue date.                                                                 | WA Updated Credit Score = \[
\sum_{\text{Loan}(1)}^{\text{Loan}(N)} \left( \frac{\text{Updated Credit Score} \times \text{Investor UPB}}{\sum_{\text{Loan}(1)}^{\text{Loan}(N)}} \right) \]

OR

WA Updated Credit Score = \[
\frac{\left( \sum_{\text{Loan}(1)}^{\text{Loan}(N)} \text{Updated Credit Score} \times \text{Investor UPB} \right)}{\sum_{\text{Loan}(1)}^{\text{Loan}(N)} \text{Investor UPB}} \]

- Round to the nearest integer.
- If credit score is < 300 or > 850, the loan is excluded from the WA Updated Credit Score calculation.                                                                 |
| Gross Mortgage Margin         | For ARMs, the number of percentage points that is added to the current index value to establish the new note rate at each interest rate adjustment date.                                                           |                                                                                                                                                                                                                                         |
| Weighted Average Mortgage Margin | The weighted average of the margins of the mortgages in an ARM PC pool.                                                                                                                                    | Weighted Average Mortgage Margin = \[
\sum_{\text{Loan}(1)}^{\text{Loan}(N)} \left( \frac{\text{Gross Mortgage Margin} \times \text{Investor UPB}}{\sum_{\text{Loan}(1)}^{\text{Loan}(N)} \text{Investor UPB}} \right) \]

OR

Weighted Average Mortgage Margin = \[
\frac{\left( \sum_{\text{Loan}(1)}^{\text{Loan}(N)} \text{Gross Mortgage Margin} \times \text{Investor UPB} \right)}{\sum_{\text{Loan}(1)}^{\text{Loan}(N)} \text{Investor UPB}} \]

- Round to the one-thousandth decimal place.                                                                 |
## PC Inception Disclosure Calculations

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| **Loan Age** | The number of months since the note origination month of the mortgage. | **Loan Age** = \((\text{As of Date (MM/YY)} - \text{Loan Origination Date (MM/YY)}) - 1\)  
  ▪ Note: To ensure the age measurement commences with the first full month after the note origination month, we subtract 1.  
  ▪ Cap = \((\text{Product Term} \times 12) - \text{Remaining Months to Maturity} + 2\)  
  ▪ If Loan Origination Date is not valid or is null, set the loan age to Cap value.  
  ▪ If loan age > Cap, set the loan age to Cap value.  
  ▪ If loan age < 0, set loan age to 0. |
| **Weighted Average Loan Age** | The weighted average of the number of months since the note origination month of the mortgages in a PC pool. | **WA Loan Age** = \[
\frac{\sum_{n} ((\text{Loan Age}_n) \times (\text{Investor UPB}_n))}{\sum_{n} \text{Investor UPB}_n}
\]

**OR**  
\[
\frac{\sum_{n} (\text{Maximum Lifetime Rate}_n) \times (\text{Investor UPB}_n))}{\sum_{n} \text{Investor UPB}_n}
\]

• Round to the nearest integer. |
| **Maximum Lifetime Rate** | For ARMs, the maximum note rate of an ARM over the life of the loan. |  |
| **Weighted Average Mortgage Life Ceiling (Gross)** | The weighted average of the lifetime ceilings of the mortgages in an ARM PC pool. | **Weighted Average Mortgage Life Ceiling (Gross)** = \[
\frac{\sum_{n} ((\text{Maximum Lifetime Rate}_n) \times (\text{Investor UPB}_n))}{\sum_{n} \text{Investor UPB}_n}
\]

**OR**  
\[
\frac{\sum_{n} (\text{Maximum Lifetime Rate}_n) \times (\text{Investor UPB}_n))}{\sum_{n} \text{Investor UPB}_n}
\]

• Round to the one-thousandth decimal place. |
<p>| <strong>Months to Adjust</strong> | The number of months from PC pool issuance to the next date on which the mortgage note rate adjusts. | <strong>Months to Adjust</strong> = ((\text{Loan Next Adjustment Date (MM/YY)} - \text{As of Date (MM/YY)})) |</p>
<table>
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<tbody>
<tr>
<td>Weighted Average Months to Adjust</td>
<td>For ARM PCs only, the weighted average of the number of months from pool formation to the next date on which the PC coupon adjusts.</td>
<td>WA Months to Adjust = [ \frac{\sum_{\text{Loan}(1)}^{\text{Loan}(N)} ((\text{Months to Adjust} + 1) \times (\text{Investor UPB}))}{\sum_{\text{Loan}(1)}^{\text{Investor UPB}}} ] [ \text{OR} ] WA Months to Adjust = ( \frac{\text{Sum} ((\text{Loan Months to Adjust} + 1) \times (\text{Investor UPB}))}{\text{Sum} (\text{Investor UPB})} ) • Truncate at the one-hundredth decimal place.</td>
</tr>
<tr>
<td>Months to Amortize</td>
<td>For Initial Interest™ mortgages only, the number of months from PC pool issuance to the first scheduled Principal &amp; Interest (P&amp;I) payment date of the mortgage.</td>
<td>Months to Amortize = (Loan Initial Interest First P&amp;I Payment Date (MM/YY) - As of Date (MM/YY)) • If calculated Months to Amortize &lt; 0, set Months to Amortize to 0.</td>
</tr>
</tbody>
</table>
### PC Inception Disclosure Calculations

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<tr>
<td>Weighted Average Months to Amortize</td>
<td>For Initial Interest PCs only, the weighted average number of months from pool formation to the First P&amp;I Payment Date of the mortgages in the PC, adjusted by adding one month (for ARM PCs only) to reflect the timing of the corresponding PC First P&amp;I Payment Date.</td>
<td><strong>WA Months to Amortize</strong> = Fixed-rate Initial Interest PCs:</td>
</tr>
</tbody>
</table>
|               |             | **WA Months to Amortize** = | \[
\frac{\sum_{\text{Loan}(1)} \left( \frac{(\text{Months to Amortize}) \times (\text{Investor UPB})}{\sum_{\text{Loan}(1)} \text{Investor UPB}} \right)}{\sum_{\text{Loan}(1)} \text{Investor UPB}}
\]  |
|               |             | OR | \[
\text{WA Months to Amortize} = \frac{\text{Sum} \left( \text{Months to Amortize} \times (\text{Investor UPB}) \right)}{\text{Sum} (\text{Investor UPB})}
\]  |
|               |             | • Truncate at the one-hundredth decimal place. |  |
|               |             | **Adjustable-rate Mortgage (ARM) Initial Interest PCs:** |  |
|               |             | **WA Months to Amortize** = | \[
\frac{\sum_{\text{Loan}(1)} \left( \frac{(\text{Loan Initial Interest First P&I Payment Date (MM/YY) − As of Date (MM/YY)} + 1 \times (\text{Investor UPB})}{\sum_{\text{Loan}(1)} \text{Investor UPB}} \right)}{\sum_{\text{Loan}(1)} \text{Investor UPB}}
\]  |
|               |             | OR | \[
\text{WA Months to Amortize} = \frac{\text{Sum} \left( (\text{Loan Initial Interest First P&I Payment Date (MM/YY) − As of Date (MM/YY)} + 1 \right) \times (\text{Investor UPB})}{\text{Sum} (\text{Investor UPB})}
\]  |
|               |             | • Truncate at the one-hundredth decimal place. |  |
|               |             | • If (\text{Loan Initial Interest First P&I Payment Date (MM/YY) − As of Date (MM/YY)} + 1 < 0, set (\text{Loan Initial Interest First P&I Payment Date (MM/YY) − As of Date (MM/YY)} + 1 to 0. |  |
| Net Maximum Lifetime Rate | The maximum lifetime rate of a mortgage after the applicable servicing fee and guarantee fee have been subtracted. | **Net Maximum Lifetime Rate** = Maximum Lifetime Rate − all applicable fees |
### PC Inception Disclosure Calculations

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</table>
| Weighted Average Mortgage Life Ceiling (Net) | The weighted average of the lifetime ceilings of the mortgages in an ARM PC pool, net of applicable fees. | **Weighted Average Mortgage Life Ceiling (Net) =**  
\[
\frac{\sum_{\text{Loan}(\text{N})} (\text{Net Maximum Lifetime Rate}) \times (\text{Investor UPB})}{\sum_{\text{Loan}(\text{N})} \text{Investor UPB}}
\]

**OR**  
\[
\text{Weighted Average Mortgage Life Ceiling (Net)} = \frac{\left(\sum (\text{Net Maximum Lifetime Rate}) \times (\text{Investor UPB})\right)}{\left(\sum \text{Investor UPB}\right)}
\]

- **Truncate at the one-thousandth decimal place.**

<table>
<thead>
<tr>
<th>Net Mortgage Margin</th>
<th>The mortgage margin, after the applicable servicing fee and guarantee fee have been subtracted.</th>
<th><strong>Net Mortgage Margin =</strong> Gross Mortgage Margin – all applicable fees</th>
</tr>
</thead>
</table>

| PC Margin | The weighted average of the margins of the mortgages in an ARM PC pool, net of applicable fees. | **PC Margin =**  
\[
\frac{\sum_{\text{Loan}(\text{N})} ((\text{Net Mortgage Margin}) \times (\text{Investor UPB}))}{\sum_{\text{Loan}(\text{N})} \text{Investor UPB}}
\]

**OR**  
\[
\text{PC Margin} = \frac{\left(\sum ((\text{Net Mortgage Margin}) \times (\text{Investor UPB}))\right)}{\left(\sum \text{Investor UPB}\right)}
\]

- **Truncate at the one-thousandth decimal place.**
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<tr>
<th>VARIABLE NAME</th>
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</table>
| Combined Loan-to-Value (CLTV)     | In the case of a purchase mortgage loan, the ratio is obtained by dividing the mortgage loan amount on the note date plus any secondary mortgage loan amount disclosed by the Seller by the lesser of the mortgaged property’s appraised value on the note date or its purchase price. If the secondary financing amount disclosed by the Seller includes a home equity line of credit, then the Combined LTV calculation reflects the disbursed amount at closing of the first lien mortgage loan, not the maximum loan amount available under the home equity line of credit. In the case of a seasoned mortgage loan, if the Seller cannot warrant that the value of the mortgaged property has not declined since the note date, Freddie Mac requires that the Seller must provide a new appraisal value, which is used in the Combined LTV calculation. This disclosure is subject to the widely varying standards originators use to verify Borrowers’ secondary mortgage loan amounts and will not be updated. | • If any one of the following criteria is met, the CLTV ratio will be disclosed as “Unknown,” which will be indicated by a blank space.  
  - Mortgage loans backing a High LTV >105% and ≤125% Gold PC: CLTV ratio is <6% or >155%  
  - Mortgage loans backing High LTV > 125% Gold PC: CLTV ratio is <8% or >999%  
  - All other loans: CLTV ratio is <8% or >135%  
  - The CLTV ratio is < the loan LTV ratio  
  - The LTV ratio is “Unknown” |
### PC Inception Disclosure Calculations

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<tbody>
<tr>
<td>Weighted Average Combined Loan-to-Value (CLTV)</td>
<td>The weighted average of the ratios between each mortgage’s UPB as of the note date plus any secondary mortgage loan amount disclosed by the Seller and either (1) in the case of a purchase, the lesser of the mortgaged property’s appraised value on the note date or its purchase price or (2) in the case of a refinance mortgage loan, the mortgaged property’s appraised value on the note date. If the secondary financing amount disclosed by the Seller includes a home equity line of credit, then the mortgage Combined LTV ratio used in the PC WA Combined LTV calculation reflects the disbursed amount at closing of the first lien mortgage loan, not the maximum loan amount available under the home equity line of credit. In the case of a seasoned mortgage loan, if the Seller cannot warrant that the value of the mortgaged property has not declined since the note date, Freddie Mac requires that the Seller must provide a new appraisal value, which is used in the mortgage Combined LTV calculation and subsequently in the PC WA Combined LTV calculation. This disclosure is subject to the widely varying standards originators use to verify Borrowers’ secondary mortgage loan amounts.</td>
<td>[ \text{WA CLTV} = \frac{\sum_{n} ((\text{Loan CLTV Ratio}) \times (\text{Investor UPB}))}{\sum_{n} \text{Investor UPB}} ] [ \text{OR} ] [ \text{WA CTLV} = \frac{\text{(Sum}((\text{Loan CLTV Ratio}) \times (\text{Investor UPB})))}{\text{(Sum} (\text{Investor UPB}))} ] • Round to the nearest integer. • If any one of the following criteria is met, the loan is excluded from the WA CLTV calculation. Mortgage loans backing a High LTV &gt;105% and ≤125% Gold PC: CLTV ratio is &lt;6% or &gt;155% - Mortgage loans backing High LTV &gt;125% Gold PC: CLTV ratio is &lt;6% or &gt;999% - All other loans: CLTV ratio is &lt;6% or &gt;135% - The loan CLTV ratio is &lt; the loan LTV ratio. - The LTV ratio is “Unknown.”</td>
</tr>
</tbody>
</table>
**PC Inception Disclosure Calculations**

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</table>
| Debt-to-Income (DTI) Ratio | Disclosure of the debt to income ratio is based on (1) the sum of the borrower’s monthly debt payments, including monthly housing expenses that incorporate the mortgage payment the borrower is making at the time of the delivery of the mortgage loan to Freddie Mac, divided by (2) the total monthly income used to underwrite the borrower as of the date of the origination of the mortgage loan. The debt to income ratio will not be updated. This disclosure is subject to the widely varying standards originators use to verify Borrowers’ assets and liabilities. | • If any one of the following criteria is met, the DTI Ratio will be disclosed as “Unknown,” which will be indicated by a blank space.  
  - The loan DTI ratio falls outside the range of > 0% and <= 65%.  
  - The loan’s reported Monthly Income is <= $100.  
  - The loan’s reported Monthly Income or reported Monthly Debt is >= $99,999.  
  - The loan’s reported Monthly Debt is < the loan’s Monthly P&I Payment (at the time of delivery to Freddie Mac) and the loan is not an Investment Property. |
| Weighted Average Debt-to-Income (DTI) | The weighted average of the ratios between each mortgage’s (1) sum of the Borrower’s monthly debt payments, including monthly housing expenses that incorporate the mortgage payment the Borrower is making at the time of the delivery of the mortgage loan to Freddie Mac and (2) the total monthly income used to underwrite the Borrower as of the date of the origination of the mortgage loan. This disclosure is subject to the widely varying standards originators use to verify Borrowers’ assets and liabilities. | WA DTI =  
\[
\frac{\sum_{\text{Loan}} ((\text{Loan DTI Ratio}) \times (\text{Investor UPB}))}{\sum_{\text{Loan}} (\text{Investor UPB})}
\]

OR

WA DTI = (Sum ((Loan DTI Ratio) * (Investor UPB))) / (Sum (Investor UPB))

• Round to the nearest integer
• If any one of the following criteria is met, the loan is excluded from the WA DTI calculation.  
  - The loan DTI ratio falls outside the range of > 0% and <= 65%.  
  - The loan’s Monthly Income is <= $100.  
  - The loan’s reported Monthly Income or reported Monthly Debt is >= $99,999.  
  - The loan’s Monthly Debt is < the loan’s Monthly P&I Payment (at the time of delivery to Freddie Mac) and the loan is not an Investment Property. |
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<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
<th>OR</th>
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</table>
| **Loan-to-Value (LTV)**     | In the case of a purchase mortgage loan, the ratio obtained by dividing the mortgage loan amount on the note date by the lesser of the mortgaged property’s appraised value on the note date or its purchase price.  
In the case of a refinance mortgage loan, the ratio obtained by dividing the mortgage loan amount on the note date and the mortgage property’s appraised value on the note date.  
In the case of a seasoned mortgage loan, if the Seller cannot warrant that the value of the mortgaged property has not declined since the note date, Freddie Mac requires that the Seller must provide a new appraisal value, which is used in the LTV calculation. | • If any one of the following criteria is met, the LTV ratio will be disclosed as “Unknown,” which will be indicated by a blank space.  
  - FHA/VA loans: LTV ratio is <6% or >110%  
  - Mortgage loans backing a High LTV >105% and ≤125% Gold PC: LTV ratio is <6% or >125%  
  - Mortgage loans backing High LTV >125% Gold PC: CLTV ratio is <6% or >999%  
  - All other loans: LTV ratio is <6% or >105% |                                                                                                                                                                                                                      |
| **Weighted Average Loan-to-Value (LTV)** | The weighted average of the ratios between each mortgage’s UPB as of the note date and either (1) in the case of a purchase mortgage loan, the lesser of the mortgaged property’s appraised value on the note date or its purchase price or (2) in the case of a refinance mortgage loan, the mortgaged property’s appraised value on the note date.  
In the case of a seasoned mortgage loan, if the Seller cannot warrant that the value of the mortgaged property has not declined since the note date, Freddie Mac requires that the Seller must provide a new appraisal value, which is used in the LTV calculation. | **WA LTV =**  
\[
\frac{\sum_{\text{Loan}(N)} ((\text{Loan LTV Ratio}) \times (\text{Investor UPB}))}{\sum_{\text{Loan}(N)} \text{Investor UPB}}
\]  
OR  
**WA LTV =** (Sum ((Loan LTV Ratio) * (Investor UPB))) / (Sum (Investor UPB)) | • Round to the nearest integer.  
• If any one of the following criteria is met, the loan is excluded from the WA LTV calculation.  
  - FHA/VA loans: LTV ratio is <6% or >110%  
  - Mortgage loans backing a High LTV >105% and ≤125% Gold PC: LTV ratio is <6% or >125%  
  - Mortgage loans backing High LTV >125% Gold PC: CLTV ratio is <6% or >999%  
  - All other loans: LTV ratio is <6% or >105% |
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<tr>
<td>Estimated Loan-to-Value (LTV)</td>
<td>In the case of Reinstated Mortgages, the ratio obtained by dividing the outstanding balance of the mortgage loan at the time of PC issuance by the value of the property obtained through our proprietary automated valuation model. Although we believe that our automated valuation model yields a reasonable approximation of the property’s current value, using a value obtained from: (i) a different automated valuation model, (ii) an appraisal based on a physical inspection of the property or (iii) an arm’s length sale of the property could result in a different value for the property.</td>
<td>• Estimated LTV ratios that are unavailable, below 6% or greater than 300% will be disclosed as “Unknown,” which is indicated by a blank space.</td>
</tr>
</tbody>
</table>
| Weighted Average Estimated Loan-to-Value (LTV) | In the case of Reinstated PCs, the weighted average of the borrowers’ estimated LTV ratios obtained by dividing the outstanding balance of the mortgage loan at the time of PC issuance by the value of the property obtained through our proprietary automated valuation model. | WA Estimated LTV = \[
\frac{\sum_{\text{Loan} (\text{N})} (\text{Loan Estimated LTV Ratio} \times (\text{Investor UPB}))}{\sum_{\text{Loan} (\text{N})} \text{Investor UPB}}
\]

OR

WA Estimated LTV = (Sum ((Loan Estimated LTV Ratio) * (Investor UPB))) / (Sum (Investor UPB))

• Round to the nearest integer.
• If Estimated LTV ratio is <6% or >300%, the loan is excluded from the WA Estimated LTV calculation. |
| Mortgage Loan Amount | The UPB of the mortgage on the note date. For seller-owned modified mortgages, modified mortgages, converted mortgages, and construction-to-permanent mortgages, the UPB of the mortgage as of the note modification, conversion, or construction to permanent date of the mortgage. |
## PC Inception Disclosure Calculations

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<tbody>
<tr>
<td><strong>Average Loan Size</strong></td>
<td>The simple average of the UPBs as of the note date of the mortgages in a PC pool.</td>
<td>[ \text{Average Loan Size} = \frac{\sum_{\text{Loan}(N)} \left( \text{Mortgage Loan Amount rounded to the nearest 1000} \right)}{\text{Total Number of Loans in Pool}} ] OR <strong>Average Loan Size</strong> = ( \frac{\text{Sum (Mortgage Loan Amount rounded to the nearest 1000))}}{\text{Count (Loans in Pool)}} ) • Round to the nearest dollar. • If Mortgage Loan Amount is invalid, the loan is excluded from the Average Loan Size calculation.</td>
</tr>
<tr>
<td><strong>Weighted Average Loan Size</strong></td>
<td>The weighted average of the UPBs, as of the note date, of the mortgages in a PC pool.</td>
<td>[ \text{WA Loan Size} = \frac{\sum_{\text{Loan}(N)} \left( \left( \text{Mortgage Loan Amount rounded to the nearest 1000} \right) \times (\text{Investor UPB}) \right)}{\sum_{\text{Loan}(N)} \text{Investor UPB}} ] OR <strong>WA Loan Size</strong> = ( \frac{\text{Sum ((Mortgage Loan Amount rounded to the nearest 1000) * (Investor UPB}))}{\text{Sum (Investor UPB)}} ) • Round to the nearest dollar. • If Mortgage Loan Amount is invalid, the loan is excluded from the WA Loan Size calculation.</td>
</tr>
</tbody>
</table>
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</table>
| Loan Term              | For fixed-rate (excluding balloon/reset mortgages), adjustable-rate, and initial interest mortgages, the number of scheduled monthly payments of the mortgage, between the first payment date and the maturity date of the mortgage. For balloon/reset mortgages, the number of scheduled monthly payments of the mortgage, based on the note rate, P&I amount, and mortgage loan amount of the mortgage. | **Fixed-Rate (excluding Balloon/Reset), Adjustable-Rate, and Initial Interest Mortgages:**  
  Loan Term: (Loan Maturity Date (MM/YY) – Loan First Payment Date (MM/YY) + 1)  
  - Cap = Product Term * 12  
  - If calculated Loan Term < 1 or > Cap, set Loan Term to Cap value  
  - If Loan First Payment Date and Loan Maturity Date are not valid, set Loan Term to Cap value.  
  **Balloon/Reset Mortgages:**  
  Loan Term:  
  $$- \log \left( 1 - \left( \frac{1200}{\text{Note Rate as of PC Issuance}} \cdot \frac{\text{Investor UPB}}{\text{Monthly P&I Payment}} \right)^{\frac{\text{Mortgage Loan Amount}}{1200}} \right)$$  
  $$\log \left( 1 + \left( \frac{1200}{\text{Note Rate as of PC Issuance}} \right) \right)$$  
  OR  
  Loan Term = -(FUNCTION LOG10 (1 – (Mortgage Loan Amount * ((Note Rate as of PC Issuance/1200) / Monthly P&I Payment))) / FUNCTION LOG10 (1 + (Note Rate as of PC Issuance/1200)))  
  - Round to the nearest integer.  
  - Cap = Amortization Term * 12  
  - If Mortgage Loan Amount, Note Rate as of PC Issuance, or Monthly P&I Payment are invalid, set Loan Term to Cap value.  |
| Weighted Average Loan Term | The weighted average of the number of scheduled monthly payments of the mortgages in a PC pool.                                                                                                           | **WA Loan Term =**  
  $\sum_{\text{Loan } (1)} \left( \frac{(\text{Loan Term}) \cdot (\text{Investor UPB})}{\text{Investor UPB}} \right)$  
  $\sum_{\text{Loan } (1)} \text{Investor UPB}$  
  OR  
  WA Loan Term = (Sum ((Loan Term) * (Investor UPB))) / (Sum (Investor UPB))  
  - Round to the nearest integer.  |
| Investor UPB           | The UPB of the mortgage contributing to the issuance UPB of a PC pool.                                                                                                                                         | **Investor UPB =**  
  $\sum_{\text{Loan } (1)} \text{Investor UPB}$  
  OR  
  Investor UPB = (Sum (Investor UPB))  |
| Issuance Pool UPB      | The aggregate UPB of the mortgages in a PC pool, as of PC issuance.                                                                                                                                           | **Issuance Pool UPB =**  
  $\sum_{\text{Loan } (1)} \text{Investor UPB}$  
  OR  
  Issuance Pool UPB = (Sum (Investor UPB))  |
<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
</table>
| Remaining Months to Maturity (RMM) | For fixed-rate mortgages, including Initial Interest mortgages that have reached the Initial Interest first P&I payment date, the number of scheduled monthly payments that, after giving effect to partial unscheduled principal payments, remain on the mortgage. | **Fixed-rate (non-Initial Interest Mortgages)**  
RMM =  

\[
- \log \left( \frac{1 - \left( \frac{\text{Investor UPB} \times \left( \frac{\text{Note Rate as of PC Issuance}}{1200} \right)}{\text{Monthly P&I Payment}} \right)}{ \log \left( 1 + \left( \frac{\text{Note Rate as of PC Issuance}}{1200} \right) \right)} \right)
\]  
OR  

RMM = \left( \frac{\text{FUNCTION LOG10} \left(1 - \left(\frac{\text{Investor UPB} \times \left(\frac{\text{Note Rate as of PC Issuance}}{1200}\right)}{\text{Monthly P&I Payment}}\right)\right)}{\text{FUNCTION LOG10} \left(1 + \left(\frac{\text{Note Rate as of PC Issuance}}{1200}\right)\right)} \right)  

- Round to the nearest integer.  
- Default RMM = Pool Maturity Date (MM/YY) – As of Date (MM/YY)  
- If Default RMM > Product Term * 12, use Product Term * 12 as Default RMM.  
- RMM Cap = Default RMM + 2 months.  
- If RMM Cap > Product Term * 12, use Product Term * 12 as RMM Cap.  
- If RMM > RMM Cap, set RMM to Cap value.  
- If Investor UPB, Note Rate as of PC Issuance, or Monthly P&I Payment are invalid, use Default RMM.  

Adjustable-rate Mortgages (ARMs) and Initial Interest Mortgages:  
RMM =  

If Loan First Payment Date > As of Date, use the following calculation:  
(Loan Maturity Date (MM/YY) – Loan First Payment Date (MM/YY)) + 1  
Otherwise, use: (Loan Maturity Date (MM/YY) – As of Date (MM/YY))  

- Default RMM = Pool Maturity Date (MM/YY) – As of Date (MM/YY)  
- If Default RMM > Product Term * 12, use Product Term * 12 as Default RMM  
- RMM Cap = Default RMM + 2 months  
- If RMM Cap > Product Term * 12, use Product Term * 12 as RMM Cap  
- If RMM > RMM Cap, set RMM to Cap value  
- For fixed-rate Initial Interest mortgages: If Loan Initial Interest First P&I Payment Date <= As of Date, use the fixed-rate (non-Initial Interest mortgage) calculation above.  

Balloon Mortgages:  
RMM =  

If Loan First Payment Date > As of Date, use the following calculation:  
(Loan Maturity Date (MM/YY) – Loan First Payment Date (MM/YY)) + 1  
Otherwise, use: (Loan Maturity Date (MM/YY) – As of Date (MM/YY))  

- Default RMM = Pool Maturity Date (MM/YY) – As of Date (MM/YY)  
- If Default RMM > Product Balloon Term * 12, use Product Balloon Term * 12 as Default RMM  
- RMM Cap = Default RMM  
- If RMM > RMM Cap, set RMM to cap value. |
### PC Inception Disclosure Calculations

#### Weighted Average Remaining Maturity

**For fully-amortizing Gold PCs,** the weighted average of the number of scheduled monthly payments that, after giving effect to full and partial unscheduled principal payments, remain on the mortgages in a PC pool.

**For ARM PCs and Initial Interest PCs during the initial interest period,** the weighted average of the current number of scheduled monthly payments which remain on the mortgages in a PC pool.

**For PC pools backed by balloon/reset mortgages,** the WA Remaining Maturity reflect the Weighted Average Term to Balloon, which is the weighted average remaining number of months to the balloon maturity or reset date of the mortgages.

\[
\text{WA Remaining Maturity} = \frac{\sum_{\text{Loan}(N)} ((\text{Loan RMM}) \times (\text{Investor UPB}))}{\sum_{\text{Loan}(1)} \text{Investor UPB}}
\]

**OR**

\[
\text{WA Remaining Maturity} = \frac{\text{Sum} ((\text{Loan RMM}) \times (\text{Investor UPB}))}{\text{Sum} (\text{Investor UPB})}
\]

- **Round to the nearest integer.**

#### Breakout Variables

- **Asset Documentation**
- **Estimated LTV**
- **Loan Origination Year**
- **Occupancy Status**
- **Borrower Payment History**
- **Employment Documentation**
- **Loan Purpose**
- **Property State**
- **CLTV**
- **First-time Homebuyer**
- **LTV**
- **Seller**
- **Credit Score**
- **First Payment Distribution**
- **Mortgage Insurance**
- **Servicer**
- **Updated Credit Score**
- **Income Documentation**
- **Number of Borrowers**
- **Third Party Origination**
- **DTI**
- **Initial Interest First P&I Payment**
- **Number of Units**

#### PC Inception Disclosure Calculations

- **For each Breakout Variable: # of Loans**
  - Number of Breakout Variable Loans
  - OR Count (Breakout Variable Loans)

- **For each Breakout Variable: % of Loans**
  - \(\frac{\text{Number of Breakout Variable Loans}}{\text{Total Number of Loans in Pool}}\)
  - OR \(\frac{\text{(Count (Breakout Variable Loans))}}{\text{(Count Loans in Pool)}}\)
  - **Round to the one-hundredth decimal place.**
  - **Note:** The sum of the % of loans for the mortgages within a PC may not add up to 100.00% due to rounding.

- **For each Breakout Variable: % of UPB**
  - \(\frac{\sum_{\text{Loan}(N)} (\text{Breakout Variable Investor UPB})}{\sum_{\text{Loan}(1)} \text{Investor UPB}} \times 100\)
  - OR
  - \(\frac{\text{Sum} (\text{Breakout Variable Loan Investor UPB})}{\text{Sum} (\text{Investor UPB})} \times 100\)
  - **Round to the one-hundredth decimal place.**
  - **Note:** The sum of the % of UPB for the mortgages within a PC may not add up to 100.00% due to rounding.
<table>
<thead>
<tr>
<th><strong>PC Inception Disclosure Calculations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Borrower Payment History Prior to PC Issue Date</strong></td>
</tr>
</tbody>
</table>
| **CLTV Unknown** | Loan CLTV considered “Unknown” if:  
  - Mortgage Loans backing a High LTV > 105% and ≤ 125% Gold PC: CLTV is < 6% or > 155%  
  - Mortgage loans backing High LTV >125% Gold PC: CLTV ratio is <6% or >999%  
  - All other loans: CLTV is < 6% or > 135%  
  - CLTV is < LTV  
  - LTV is “Unknown” |
| **Credit Score Unknown** | Credit Score considered “Unknown” if:  
  - Credit score is unavailable or  
  - Credit Score value is < 300 or > 850 |
| **Updated Credit Score Unknown** | For Reinstated Mortgage PCs:  
  Updated Credit Score considered “Unknown” if:  
  - Updated Credit Score is unavailable or  
  - Updated Credit Score < 300 or > 850 |
| **DTI Unknown** | Loan DTI considered “Unknown” if:  
  - DTI falls outside the range of > 0% and ≤ 65%  
  - Monthly Income is < = $100  
  - The loan’s reported Monthly Income or reported Monthly Debt is >= $99,999  
  - Monthly Debt is < Monthly P&I Payment (at the time of delivery to Freddie Mac) and the loan is not an Investment Property. |
| **Estimated LTV Unknown** | For Reinstated Mortgage PCs:  
  Estimated LTV considered “Unknown” if:  
  - Estimated LTV is unavailable or  
  - Estimated LTV < 6% or > 300% |
| **First Payment Distribution** | Loan is “Not Paying” in First Distribution if:  
  - Loan First Payment Date > (As of Date + 1 month)  
  - If Loan First Payment Date is not valid or is null, use the Note Origination Date (MM/YY) + 2  
  - If Loan First Payment Date (MM/YY) – Note Origination Date (MM/YY) >, use the Note Origination Date (MM/YY) + 2 |
| **Initial Interest First P&I Payment** | For Initial Interest Fixed Rate PCs:  
  - The PC Initial Interest First P&I Payment Date = Loan Initial Interest First P&I Payment Date  
  For Initial Interest ARM PCs:  
  - The PC Initial Interest First P&I Payment Date = Loan Initial Interest First P&I Payment Date + 1 month |
| **LTV Unknown** | Loan LTV considered “Unknown” if:  
  - FHA/VA loans: LTV is < 6% or > 110%  
  - Mortgage loans backing a High LTV > 105% and ≤ 125% Gold PC: LTV is < 6% or > 125%  
  - Mortgage loans backing High LTV > 125% Gold PC: CLTV ratio is < 6% or > 999%  
  - All other loans: LTV is < 6% or > 105% |
| **Mortgage Insurance (MI) Unknown** | Loan MI considered “Unknown” if:  
  - MI percentage is > 55% |
## Monthly PC Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Score</td>
<td>A number, prepared by third parties, summarizing the borrower’s creditworthiness, which may be indicative of the likelihood that the borrower will timely repay future obligations. All known credit scores are disclosed at PC issuance. Mortgages reported with unknown credit scores at the time of PC issuance may have credit scores disclosed in the month following PC issuance.</td>
<td>• If credit score is &lt; 300 or &gt; 850, the credit score will be disclosed as “Unknown,” which will be indicated by a blank space.</td>
</tr>
</tbody>
</table>
| Current Weighted Average Credit Score | The weighted average, as of the note date, of the borrowers’ credit scores for the mortgages in a PC pool. The WA Credit Score consists of known credit scores as of the settlement date of the PC and the first month update after the settlement date may reflect additional known credit scores. | **Current WA Credit Score** = \[
\frac{\sum_{\text{Loan } (1)} ((\text{Credit Score}) \times (\text{Current Investor UPB}))}{\sum_{\text{Loan } (1)} \text{Current Investor UPB}}
\]

**OR**

Current WA Credit Score = (Sum ((Credit Score) * (Current Investor UPB))) / (Sum (Current Investor UPB))

• Round to the nearest integer.
• If credit score is < 300 or > 850, the loan is excluded from the Current WA Credit Score calculation.                                                                                                                                 |
| Updated Credit Score   | In the case of a Reinstated Mortgage, the updated credit score is a number prepared by third parties, summarizing the borrower’s creditworthiness, which may be indicative of the likelihood that the borrower will timely repay future obligations. For Reinstated Mortgages, a new credit score is collected, as of PC issuance, consistent with the process used to underwrite the Reinstated Mortgages originally. | • If credit score is < 300 or > 850, the Updated Credit Score will be disclosed as “Unknown,” which will be indicated by a blank space.                                                                                                                                 |
### Monthly PC Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
</table>
| Current Weighted Average Updated Credit Score | In the case of Reinstated PCs, the weighted average of the borrowers’ updated credit scores as of the Reinstated Mortgage PC Pool issue date. | **Current WA Updated Credit Score =**  
\[
\frac{\sum_{n=1}^{N} \left( \left( \text{Updated Credit Score} \right) \times \left( \text{Current Investor UPB} \right) \right)}{\sum_{n=1}^{N} \text{Current Investor UPB}}
\]  
OR  
\[
\frac{\text{(Sum (Updated Credit Score) \times (Current Investor UPB)))}}{\text{(Sum (Current Investor UPB))}}
\]  
- Round to the nearest integer.  
- If credit score is < 300 or > 850, the loan is excluded from the Current WA Updated Credit calculation. |
| Current Investor UPB                        | The UPB of the mortgage contributing to the current UPB of a PC pool.         | **Fixed-rate (non-Initial Interest) Mortgages:**  
The Current Investor UPB is derived from the mortgage balance as reported by the servicer. The Current Investor UPB reflects any scheduled and unscheduled principal reductions applied to the mortgage.  
**Adjustable-rate Mortgages (ARMs) and Initial Interest Mortgages:**  
The Current Investor UPB reflects the mortgage balance, as reported by the servicer. The Current Investor UPB reflects the actual principal reduction of the mortgage.  
- Note: A loan’s Current Investor UPB may remain constant from one month to the next for several reasons. Possible reasons are outlined in the chart below: |
| Current Pool UPB                            | The aggregate UPB of the mortgages in a PC pool.                             | **Current Pool UPB =**  
\[
\sum_{n=1}^{N} \text{Current Investor UPB}
\]  
OR  
\[
\text{(Sum (Current Investor UPB))}
\]  
<table>
<thead>
<tr>
<th><strong>Mortgage Type</strong></th>
<th><strong>Reason</strong></th>
<th><strong>Reason</strong></th>
</tr>
</thead>
</table>
| **ARM and Fixed-Rate Mortgages**            | **Balance Corrections:**  
Mortgages can experience upward balance corrections. When these corrections occur, the Current Investor UPB contributing to the Current Pool UPB will remain constant until the collected borrower’s mortgage balance is lower than the Current Investor UPB.  
**Paid-in-advance:**  
Mortgages that are paid-in-advance may have a constant Current Investor UPB until the current date is later than the due date of the mortgage’s last paid installment. |
| **ARM**                                     | **Delinquencies:**  
When an adjustable-rate mortgage experiences a delinquency, its Current Investor UPB contributing to the Current Pool UPB will remain constant until the mortgage recovers from delinquency. |
## Monthly PC Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
</table>
| **Current Loan Age** | The number of months since the note origination month of the mortgage. | **Current Loan Age** =  
Fixed-rate Mortgages: 
\[
\text{Current Loan Age} = ((\text{Current Factor Date (MM/YY)} - \text{Loan Origination Date (MM/YY)}) - 1)
\]  
- **Note:** To ensure the age measurement commences with the first full month after the note origination month, we subtract 1. To ensure the age measurement accounts for the current month's scheduled amortization, the current factor is used for loans backing fixed-rate Gold PCs.  
- **Cap** = (Product Term *12) – Remaining Months to Maturity + 2  
- Loan Origination Date (LOD) must be valid. If LOD is not valid or is null, set the loan age to Cap value.  
- If loan age > Cap, set the loan age to Cap value.  
- If loan age < 0, set loan age to 0.  

Adjustable-rate Mortgages (ARMs): 
\[
\text{Current Loan Age} = ((\text{Prior Factor Date (MM/YY)} - \text{Loan Origination Date (MM/YY)}) - 1)
\]  
- **Note:** To ensure the age measurement commences with the first full month after the note origination month, we subtract 1.  
- **Cap** = (Product Term *12) – Remaining Months to Maturity + 2  
- If Loan Origination Date is not valid or is null, set the loan age to Cap value.  
- If loan age > Cap, set the loan age to Cap value.  
- If loan age < 0, set loan age to 0.  

| **Current Weighted Average Loan Age** | The weighted average of the number of months since the note origination month of the mortgages in a PC pool. | **Current WA Loan Age** =  
\[
\text{Current WA Loan Age} = \sum_{\text{Loan (N)}} \left( \frac{((\text{Loan Age}) \times (\text{Current Investor UPB}))}{\sum_{\text{Loan (N)}} \left( \sum_{\text{Current Investor UPB}} \right)} \right)
\]  
**OR**  
\[
\text{Current WA Loan Age} = \left( \frac{\text{Sum} ((\text{Loan Age}) \times (\text{Current Investor UPB}))}{\text{Sum} (\text{Current Investor UPB})} \right)
\]  
- Round to the nearest integer.  

| **Current Months to Adjust** | For ARMs, the number of months from the first day of the current month to the next date on which the mortgage note rate adjusts. | **Current Months to Adjust** =  
(Loan Next Adjustment Date (MM/YY) – Current Factor Date (MM/YY))  

| **Current Weighted Average Months to Adjust** | For ARM PCs only, the weighted average of the number of months from the first day of the current month until the next date on which the PC coupon adjusts. | **Current WA Months to Adjust** =  
\[
\text{Current WA Months to Adjust} = \sum_{\text{Loan (N)}} \left( \frac{((\text{Months to Adjust} + 1) \times (\text{Current Investor UPB}))}{\sum_{\text{Loan (N)}} \left( \sum_{\text{Current Investor UPB}} \right)} \right)
\]  
**OR**  
\[
\text{Current WA Months to Adjust} = \left( \frac{\text{Sum} ((\text{Loan Months to Adjust} + 1) \times (\text{Current Investor UPB}))}{\text{Sum} (\text{Current Investor UPB})} \right)
\]  
- **Round to the nearest integer.**  
- **Truncate at the one-hundredth decimal place.**
### Monthly PC Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
</table>
| **Current Months to Amortize** | For Initial Interest mortgagess only, the number of months from the first day of the current month to the first scheduled Principal & Interest (P&I) date of the mortgage. | **Current Months to Amortize** = (Loan Initial Interest First P&I Payment Date (MM/YY) – Current Factor Date (MM/YY))  
  - If calculated Months to Amortize < 0, set Months to Amortize to 0. |
| **Current Weighted Average Months to Amortize** | For Initial Interest PCs only, the weighted average number of months from the first day of the current month to First P&I Payment Date of the mortgages in the PC, adjusted by adding one month (for ARM PCs only) to reflect the timing of the corresponding PC First P&I Payment Date. | **Current WA Months to Amortize** = Fixed-rate Initial Interest PCs:  
\[
\frac{\sum_{k=1}^{n} ((Months to Amortize + 1) \times (Current Investor UPB))}{\sum_{k=1}^{n} Current Investor UPB}
\]  
OR  
\[
\frac{\sum_{k=1}^{n} (Loan Initial Interest First P&I Payment Date (MM/YY) – Current Factor Date (MM/YY) + 1) \times (Current Investor UPB))}{\sum_{k=1}^{n} Current Investor UPB}
\]  
- Truncate at the one-hundredth decimal place.  
Adjustable-rate Mortgage (ARM) Initial Interest PCs:  
\[
\frac{\sum_{k=1}^{n} ((Loan Initial Interest First P&I Payment Date (MM/YY) – Current Factor Date (MM/YY) + 1) \times (Current Investor UPB))}{\sum_{k=1}^{n} Current Investor UPB}
\]  
OR  
\[
\frac{\sum_{k=1}^{n} (Loan Initial Interest First P&I Payment Date (MM/YY) – Current Factor Date (MM/YY) + 1) \times (Current Investor UPB))}{\sum_{k=1}^{n} Current Investor UPB}
\]  
- Truncate at the one-hundredth decimal place.  
- If (Loan Initial Interest First P&I Payment Date (MM/YY) – Current Factor Date (MM/YY) + 1) < 0, set (Loan Initial Interest First P&I Payment Date (MM/YY) – Current Factor (MM/YY) + 1) to 0. |
<p>| <strong>Net Maximum Lifetime Rate</strong> | For ARMs, the maximum lifetime rate of a mortgage after the applicable servicing fee and guarantee fee have been subtracted. | <strong>Net Maximum Lifetime Rate</strong> = Maximum Lifetime Rate – all applicable fees |</p>
<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Weighted Average Mortgage</td>
<td>The weighted average of the lifetime ceilings of the mortgages in an ARM PC pool, net of</td>
<td>Current WA Mortgage Life Ceiling (Net) =</td>
</tr>
<tr>
<td>Life Ceiling (Net)</td>
<td>applicable fees.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Mortgage Margin</td>
<td>The mortgage margin, after the applicable servicing fee and guarantee fee have been</td>
<td>Net Mortgage Margin =</td>
</tr>
<tr>
<td></td>
<td>subtracted.</td>
<td>Gross Mortgage Margin – all applicable fees</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current PC Margin</td>
<td>The weighted average of the margins of the mortgages in an ARM PC pool, net of</td>
<td>Current PC Margin =</td>
</tr>
<tr>
<td></td>
<td>applicable fees.</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

**Current WA Mortgage Life Ceiling (Net)**

\[
\text{Current WA Mortgage Life Ceiling (Net)} = \frac{\sum_{\text{Loan} (N)} ((\text{Net Maximum Lifetime Rate}) \times (\text{Current Investor UPB}))}{\sum_{\text{Loan} (N)} \text{Current Investor UPB}}
\]

OR

\[
\text{Current WA Mortgage Life Ceiling (Net)} = \frac{\sum_{\text{Loan} (N)} ((\text{Net Maximum Lifetime Rate}) \times (\text{Current Investor UPB}))}{\sum_{\text{Loan} (N)} \text{Current Investor UPB}}
\]

- Truncate at the one-thousandth decimal place.

**Net Mortgage Margin**

\[
\text{Net Mortgage Margin} = \frac{\sum_{\text{Loan} (N)} ((\text{Net Maximum Lifetime Rate}) \times (\text{Current Investor UPB}))}{\sum_{\text{Loan} (N)} \text{Current Investor UPB}}
\]

OR

\[
\text{Net Mortgage Margin} = \frac{\sum_{\text{Loan} (N)} ((\text{Net Maximum Lifetime Rate}) \times (\text{Current Investor UPB}))}{\sum_{\text{Loan} (N)} \text{Current Investor UPB}}
\]

- Truncate at the one-thousandth decimal place.
### Monthly PC Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
</table>
| Combined Loan-to-Value (CLTV) | In the case of a purchase mortgage loan, the ratio is obtained by dividing the mortgage loan amount on the note date plus any secondary mortgage loan amount disclosed by the Seller by the lesser of the mortgaged property’s appraised value on the note date or its purchase price. In the case of a refinance mortgage loan, the ratio is obtained by dividing the mortgage loan amount on the note date plus any secondary mortgage loan amount disclosed by the Seller by the mortgaged property’s appraised value on the note date. If the secondary financing amount disclosed by the Seller includes a home equity line of credit, then the Combined LTV calculation reflects the disbursed amount at closing of the first lien mortgage loan, not the maximum loan amount available under the home equity line of credit. In the case of a seasoned mortgage loan, if the Seller cannot warrant that the value of the mortgaged property has not declined since the note date, Freddie Mac requires that the Seller must provide a new appraisal value, which is used in the Combined LTV calculation. This disclosure is subject to the widely varying standards originators use to verify Borrowers’ secondary mortgage loan amounts and will not be updated. | • If any one of the following criteria is met, the CLTV ratio will be disclosed as “Unknown,” which will be indicated by a blank space.  
  - Mortgage loans backing a High LTV > 105% and ≤ 125% Gold PC: CLTV ratio is < 6% or > 155%  
  - Mortgage loans backing High LTV >125% Gold PC: CLTV ratio is <6% or >999%  
  - All other loans: CLTV ratio is < 6% or > 135%  
  - The CLTV ratio is < the loan LTV ratio.  
  - The LTV ratio is “Unknown”. |
## Monthly PC Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Weighted Average Combined Loan-to-Value (CLTV)</strong></td>
<td>The weighted average of the ratios between each mortgage’s UPB as of the note date plus any secondary mortgage loan amount disclosed by the Seller and either (1) in the case of a purchase, the lesser of the mortgaged property’s appraised value on the note date or its purchase price or (2) in the case of a refinance mortgage loan, the mortgaged property’s appraised value on the note date. If the secondary financing amount disclosed by the Seller includes a home equity line of credit, then the mortgage Combined LTV ratio used in the PC WA Combined LTV calculation reflects the disbursed amount at closing of the first lien mortgage loan, not the maximum loan amount available under the home equity line of credit. In the case of a seasoned mortgage loan, if the Seller cannot warrant that the value of the mortgaged property has not declined since the note date, Freddie Mac requires that the Seller must provide a new appraisal value, which is used in the mortgage Combined LTV calculation and subsequently in the PC WA Combined LTV calculation. This disclosure is subject to the widely varying standards originators use to verify Borrowers’ secondary mortgage loan amounts.</td>
<td>Current WA CLTV = $\sum_{i=1}^{n} \left( \frac{\text{Loan CLTV}}{\text{Current Investor UPB}} \right) \times \left( \frac{\text{Current Investor UPB}}{\sum_{i=1}^{n} \text{Current Investor UPB}} \right)$ OR Current WA CTLV = $\left( \frac{\sum_{i=1}^{n} (\text{Loan CLTV Ratio} \times \text{Current Investor UPB})}{\sum_{i=1}^{n} \text{Current Investor UPB}} \right)$ • Round to the nearest integer. • If any one of the following criteria is met, the loan is excluded from the Current WA CLTV calculation. - Mortgage loans backing a High LTV &gt; 105% and ≤ 125% Gold PC: CLTV ratio is &lt; 6% or &gt; 155% - Mortgage loans backing High LTV &gt;125% Gold PC: CLTV ratio is &lt;6% or &gt;999% - All other loans: CLTV ratio is &lt; 6% or &gt; 135% - The loan CLTV ratio is &lt; the loan LTV ratio. - The LTV ratio is “Unknown”.</td>
</tr>
<tr>
<td>VARIABLE NAME</td>
<td>DESCRIPTION</td>
<td>DISCLOSURE CALCULATION</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>------------------------</td>
</tr>
</tbody>
</table>
| Debt-to-Income (DTI) Ratio | Disclosure of the debt to income ratio is based on (1) the sum of the borrower’s monthly debt payments, including monthly housing expenses that incorporate the mortgage payment the borrower is making at the time of the delivery of the mortgage loan to Freddie Mac, divided by (2) the total monthly income used to underwrite the borrower as of the date of the origination of the mortgage loan. The debt to income ratio will not be updated. This disclosure is subject to the widely varying standards originators use to verify Borrowers’ assets and liabilities. | - If any one of the following criteria is met, the DTI Ratio will be disclosed as “Unknown,” which will be indicated by a blank space.  
- The loan DTI ratio falls outside the range of > 0% and <= 65%.  
- The loan’s reported Monthly Income is <= $100.  
- The loan’s reported Monthly Income or reported Monthly Debt is >= $99,999.  
- The loan’s reported Monthly Debt is < the loan’s Monthly P&I Payment (at the time of delivery to Freddie Mac) and the loan is not an Investment Property. |
| Current Weighted Average Debt-to-Income (DTI)) | The weighted average of the ratios between each mortgage’s (1) sum of the Borrower’s monthly debt payments, including monthly housing expenses that incorporate the mortgage payment the Borrower is making at the time of the delivery of the mortgage loan to Freddie Mac and (2) the total monthly income used to underwrite the Borrower as of the date of the origination of the mortgage loan. 
This disclosure is subject to the widely varying standards originators use to verify Borrowers’ assets and liabilities. | Current WA DTI =  
\[
\frac{\sum_{\text{Loan (1)}} \left( (\text{Loan DTI Ratio}) \times (\text{Current Investor UPB}) \right)}{\sum_{\text{Loan (1)}} \text{Current Investor UPB}}
\]  
\[\text{OR}\]

Current WA DTI = (Sum ((Loan DTI Ratio) * (Current Loan UPB))) / (Sum (Current Investor UPB))  
- Round to the nearest integer.  
- If any one of the following criteria is met, the loan is excluded from the Current WA DTI calculation.  
- The loan DTI ratio falls outside the range of > 0% and <= 65%.  
- The loan’s Monthly Income is <= $100.  
- The loan’s reported Monthly Income or reported Monthly Debt is >= $99,999.  
- The loan’s Monthly Debt is < the loan’s Monthly P&I Payment (at the time of delivery to Freddie Mac) and the loan is not an Investment Property. |
## Monthly PC Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan-to-Value (LTV)</td>
<td>In the case of a purchase mortgage loan, the ratio obtained by dividing the mortgage loan amount on the note date by the lesser of the mortgaged property’s appraised value on the note date or its purchase price. In the case of a refinance mortgage loan, the ratio obtained by dividing the mortgage loan amount on the note date and the mortgaged property’s appraised value on the note date. In the case of a seasoned mortgage loan, if the Seller cannot warrant that the value of the mortgaged property has not declined since the note date, Freddie Mac requires that the Seller must provide a new appraisal value, which is used in the LTV calculation.</td>
<td>• If any one of the following criteria is met, the LTV ratio will be disclosed as “Unknown,” which will be indicated by a blank space. - FHA/VA loans: LTV ratio is &lt; 6% or &gt; 110% - Mortgage loans backing a High LTV &gt; 105% and ≤ 125% Gold PC: LTV ratio is &lt; 6% or &gt; 125% - Mortgage loans backing High LTV &gt; 125% Gold PC: CLTV ratio is &lt; 6% or &gt; 999% - All other loans: LTV ratio is &lt; 6% or &gt; 105%</td>
</tr>
</tbody>
</table>
| Current Weighted Average Loan-to-Value (LTV) | The weighted average of the ratios between each mortgage’s UPB as of the note date and either (1) in the case of a purchase mortgage loan, the lesser of the mortgaged property’s appraised value on the note date or its purchase price or (2) in the case of a refinance mortgage loan, the mortgaged property’s appraised value on the note date. In the case of a seasoned mortgage loan, if the Seller cannot warrant that the value of the mortgaged property has not declined since the note date, Freddie Mac requires that the Seller must provide a new appraisal value, which is used in the LTV calculation. | Current WA LTV = \[
\frac{\sum_{\text{Loan}(i)} (\text{Loan LTV Ratio}) \times (\text{Current Investor UPB})}{\sum_{\text{Loan}(i)} \text{Current Investor UPB}}
\] OR Current WA LTV = \[
\frac{\text{Sum} (\text{Loan LTV Ratio}) \times (\text{Current Investor UPB}))}{\text{Sum} (\text{Current Investor UPB})}
\] • Round to the nearest integer. • If any one of the following criteria is met, the loan is excluded from the Current WA LTV calculation. - FHA/VA loans: LTV ratio is < 6% or > 110% - Mortgage loans backing a High LTV > 105% and ≤ 125% Gold PC: LTV ratio is < 6% or > 125% - Mortgage loans backing High LTV > 125% Gold PC: CLTV ratio is < 6% or > 999% - All other loans: LTV ratio is < 6% or > 105%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
## Monthly PC Disclosure Calculations

<table>
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<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
</table>
| **Current Weighted Average Loan-to-Value (LTV)** | In the case of Reinstated PCs, the weighted average of the borrowers' estimated LTV ratios obtained by dividing the outstanding balance of the mortgage loan at the time of PC issuance by the value of the property obtained through our proprietary automated valuation model.                                                                 | **Current WA Estimated LTV** =  

\[
\frac{\sum_{\text{Loan}} (\text{Loan Estimated LTV Ratio} \times (\text{Current Investor UPB}))}{\sum_{\text{Loan}} \text{Current Investor UPB}}
\]  

**OR**  

**Current WA Estimated LTV** = \((\text{Sum ((Loan Estimated LTV Ratio) \times (Current Investor UPB)))} \) / (Sum (Current Investor UPB))  

- Round to the nearest integer.  
- If Estimated LTV ratio is <6% or >300%, the loan is excluded from the Current WA Estimated LTV calculation. |

| **Mortgage Loan Amount** | The UPB of the mortgage on the note date.  
For seller-owned modified mortgages, modified mortgages, converted mortgages, and construction-to-permanent mortgages, the UPB of the mortgage as of the note modification, conversion, or construction to permanent date of the mortgage. | **Current Average Loan Size** =  

\[
\frac{\sum_{\text{Loan}} \text{(Mortgage Loan Amount rounded to the nearest 1000)}}{\text{Total Number of Loans in Pool}}
\]  

**OR**  

\[
\frac{\text{(Sum (Mortgage Loan Amount rounded to the nearest 1000)))}}{\text{(Count (Loans in Pool))}}
\]  

- Round to the nearest dollar.  
- If Mortgage Loan Amount is invalid, the loan is excluded from the Current Average Loan Size calculation. |

<table>
<thead>
<tr>
<th><strong>Current Average Loan Size</strong></th>
<th>The simple average of the UPBs as of the note date of the mortgages in a PC pool.</th>
<th></th>
</tr>
</thead>
</table>

| **Current Weighted Average Loan Size** | The weighted average of the UPBs, as of the note date, of the mortgages in a PC pool.                                                                                                                                                                                                                       | **Current WA Loan Size** =  

\[
\frac{\sum_{\text{Loan}} ((\text{Mortgage Loan Amount rounded to the nearest 1000}) \times (\text{Current Investor UPB}))}{\sum_{\text{Loan}} \text{Current Investor UPB}}
\]  

**OR**  

\[
\frac{\text{(Sum ((Mortgage Loan Amount rounded to the nearest 1000) \times (Current Investor UPB))))}{\text{(Sum (Current Investor UPB))}}
\]  

- Round to the nearest dollar.  
- If Mortgage Loan Amount is invalid, the loan is excluded from the Current WA Loan Size calculation. |
# Monthly PC Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
</table>
| Loan Term           | For fixed-rate (excluding balloon/reset mortgages), adjustable-rate, and Initial Interest mortgages, the number of scheduled monthly payments of the mortgage, between the first payment date and the maturity date of the mortgage. For balloon/reset mortgages, the number of scheduled monthly payments of the mortgage based on the note rate, P&I amount, and Mortgage Loan Amount of the mortgage. | **Fixed-Rate (excluding Balloon/Reset), Adjustable-Rate, and Initial Interest Mortgages:**  
Loan Term =  
(Loan Maturity Date (MM/YY) – Loan First Payment Date (MM/YY) + 1)  
- Cap = Product Term * 12  
- If calculated Loan Term < 1 or > Cap, set OLT to Cap value.  
- If Loan First Payment Date and Loan Maturity Date are not valid, set Loan Term to Cap value.  

**Balloon/Reset Mortgages:**  
Loan Term =  
\[
- \log \left( 1 - \left. \left( \frac{\text{Investor UPB}}{\text{Note Rate as of PC Issuance}} \cdot \frac{1200}{\text{Monthly P&I Payment}} \right) \right| \right. 
\]  
\[
\log \left( 1 + \left( \frac{\text{Note Rate as of PC Issuance}}{1200} \right) \right) 
\]  
OR  
\[
\text{Loan Term} = -(\text{FUNCTION LOG10} (1 - (\text{Mortgage Loan Amount} \times (\text{Note Rate as of PC Issuance}/1200)) / \text{Monthly P&I Payment}))) / \text{FUNCTION LOG10} (1 + (\text{Note Rate as of PC Issuance}/1200)) 
\]  
- Round to the nearest integer.  
- Cap = Amortization Term * 12  
- If Mortgage Loan Amount, Note Rate as of PC Issuance, or Monthly P&I Payment are invalid, set Loan Term to Cap value. |
| Current Weighted Average Loan Term | The weighted average of the number of scheduled monthly payments of the mortgages in a PC pool. | Current WA Loan Term =  
\[
\frac{\sum_{\text{Loan} (1)} \left( (\text{Loan Term}) \times (\text{Current Investor UPB}) \right)}{\sum_{\text{Loan} (1)} \text{Current Investor UPB}} 
\]  
OR  
\[
\frac{\sum_{\text{Loan} (1)} \left( (\text{Loan Term}) \times (\text{Current Investor UPB}) \right)}{\sum_{\text{Loan} (1)} \text{Current Investor UPB}} 
\]  
- Round to the nearest integer. |
## Monthly PC Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
</table>
| Current Remaining Months to Maturity (RMM) | For fixed-rate mortgages, including Initial Interest mortgages that have reached the Initial Interest First P&I Payment Date, the number of scheduled monthly payments that, after giving effect to partial unscheduled principal payments, remain on the mortgage.                                                                                     | Fixed-rate (non-Initial Interest Mortgages)  
Current RMM =  
\[ \frac{- \log \left( 1 - \left( \frac{\text{Current Investor UPB} \times \left( \frac{\text{Note Rate as of PC Issuance}}{1200} \right)}{\text{Monthly P&I Payment}} \right)}{\log \left( 1 + \left( \frac{\text{Note Rate as of PC Issuance}}{1200} \right) \right)} \]  
OR  
Current RMM =  
\left( \frac{\text{FUNCTION LOG10} \left( 1 - \left( \frac{\text{Current Investor UPB} \times \left( \frac{\text{Note Rate as of PC Issuance}}{1200} \right)}{\text{Monthly P&I Payment}} \right) \right)}{\text{FUNCTION LOG10} \left( 1 + \left( \frac{\text{Note Rate as of PC Issuance}}{1200} \right) \right)} \right)  
• Round to the nearest integer.  
• Default RMM = Pool Maturity Date (MM/YY) – Current Factor Date (MM/YY)  
• If Default RMM > Product Term * 12, use Product Term * 12 as Default RMM.  
• RMM Cap = Default RMM + 2 months.  
• If RMM Cap > Product Term * 12, use Product Term * 12 as RMM Cap.  
• If RMM > RMM Cap, set RMM to Cap value.  
• If Current Investor UPB, Note Rate as of PC Issuance, or Monthly P&I Payment are invalid, use Default RMM.  

Adjustable-rate Mortgages (ARMs) including Initial Interest ARMs:  
Current RMM =  
If Loan First Payment Date > Current Factor Date, use the following calculation:  
\( (\text{Loan Maturity Date (MM/YY)} - \text{Loan First Payment Date (MM/YY)}) + 1 \)  
Otherwise, use:  
\( (\text{Loan Maturity Date (MM/YY)} - \text{Current Factor Date (MM/YY)}) \)  
• Default RMM = Pool Maturity Date (MM/YY) – Current Factor Date (MM/YY)  
• If Default RMM > Product Term * 12, use Product Term * 12 as Default RMM.  
• RMM Cap = Default RMM + 2 months.  
• If RMM Cap > Product Term * 12, use Product Term * 12 as RMM Cap.  
• If RMM > RMM Cap, set RMM to Cap value.  

Fixed-rate Initial Interest Mortgages:  
Current RMM =  
If Loan First Payment Date > Current Factor Date, use the following calculation:  
\( (\text{Loan Maturity Date (MM/YY)} - \text{Loan First Payment Date (MM/YY)}) + 1 \)  
Otherwise, use:  
\( (\text{Loan Maturity Date (MM/YY)} - \text{Current Factor Date (MM/YY)}) \)  
• Default RMM = Pool Maturity Date (MM/YY) – Current Factor Date (MM/YY)  
• If Default RMM > Product Term * 12, use Product Term * 12 as Default RMM.  
• RMM Cap = Default RMM + 2 months  
• If RMM Cap > Product Term * 12, use Product Term * 12 as RMM Cap.  
• If RMM > RMM Cap, set RMM to Cap value.  
• If Loan Initial Interest First P&I Payment Date <= Current Factor Date, use the Fixed-rate (non-initial Interest Mortgage) calculation above.  

Balloon Mortgages:  
Current RMM =  
If Loan First Payment Date > Current Factor Date, use the following calculation:  
\( (\text{Loan Maturity Date (MM/YY)} - \text{Loan First Payment Date (MM/YY)}) + 1 \)  
Otherwise, use:  
\( (\text{Loan Maturity Date (MM/YY)} - \text{Current Factor Date (MM/YY)}) \)  
• Default RMM = Pool Maturity Date (MM/YY) – Current Factor Date (MM/YY)  
• If Default RMM > Product Balloon Term * 12, use Product Balloon Term * 12 as Default RMM.  
• RMM Cap = Default RMM  
• If RMM > RMM Cap, set RMM to cap value.  

For ARMs and Initial Interest mortgages during the initial interest period, the RMM reflects the number of scheduled monthly payments remaining on the mortgage.  
For balloon/reset mortgages, the RMM reflects the remaining number of months to the mortgage balloon maturity or reset date.
### Monthly PC Disclosure Calculations

<table>
<thead>
<tr>
<th>VARIABLE NAME</th>
<th>DESCRIPTION</th>
<th>DISCLOSURE CALCULATION</th>
</tr>
</thead>
</table>
| Current Weighted Average Remaining Maturity | For fully-amortizing Gold PCs, the weighted average of the number of scheduled monthly payments that, after giving effect to full and partial unscheduled principal payments, remain on the mortgages in a PC pool. For ARM PCs and Initial Interest PCs during the initial interest period, the weighted average of the current number of scheduled monthly payments which remain on the mortgages in a PC pool. For PC pools backed by balloon/reset mortgages, the WA Remaining Maturity reflect the Weighted Average Term to Balloon, which is the weighted average remaining number of months to the balloon maturity or reset date of the mortgages. | Current WA Remaining Maturity = \[
\frac{\sum_{\text{Loan}} ((\text{Loan RMM}) \times (\text{Current Investor UPB}))}{\sum_{\text{Loan}} \text{Current Investor UPB}}
\]

**OR**

Current WA Remaining Maturity = (Sum ((Loan RMM) * (Current Investor UPB)) / (Sum (Current Investor UPB))

- Round to the nearest integer.

### Breakout Variables

<table>
<thead>
<tr>
<th>Asset Documentation</th>
<th>DTI</th>
<th>Initial Interest First P&amp;I Payment</th>
<th>Number of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLTV</td>
<td>Estimated LTV</td>
<td>Loan Origination Year</td>
<td>Occupancy Status</td>
</tr>
<tr>
<td>Credit Score</td>
<td>Employment Documentation</td>
<td>Loan Purpose</td>
<td>Property State</td>
</tr>
<tr>
<td>Updated Credit Score</td>
<td>First-time Homebuyer</td>
<td>LTV</td>
<td>Seller</td>
</tr>
<tr>
<td>Days Delinquent</td>
<td>First Payment Distribution</td>
<td>Mortgage Insurance</td>
<td>Servicer</td>
</tr>
<tr>
<td>Delinquent Loans Purchased</td>
<td>Income Documentation</td>
<td>Number of Borrowers</td>
<td>Third Party Origination</td>
</tr>
</tbody>
</table>
### Monthly PC Disclosure Calculations

#### For each applicable Breakout Variable: # of Loans

<table>
<thead>
<tr>
<th>Number of Breakout Variable Loans</th>
<th>OR</th>
<th>Count (Breakout Variable Loans)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Breakout Variable Loans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR (Count (Breakout Variable Loans)) / (Count Loans in Pool)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Round to the one-hundredth decimal place.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Note: The sum of the % of loans for the mortgages within a PC may not add up to 100% due to rounding.</td>
</tr>
</tbody>
</table>

#### For each applicable Breakout Variable: % of Loans

<table>
<thead>
<tr>
<th>Number of Breakout Variable Loans</th>
<th>OR</th>
<th>(Count (Breakout Variable Loans)) / (Count Loans in Pool)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Round to the one-hundredth decimal place.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Note: The sum of the % of loans for the mortgages within a PC may not add up to 100% due to rounding.</td>
</tr>
</tbody>
</table>

#### For each applicable Breakout Variable: % of UPB

\[
\left(\frac{\sum_{\text{Loan}\,(i)} \text{Breakout Variable Current Investor UPB}}{\sum_{\text{Loan}\,(i)} \text{Current Investor UPB}}\right) \times 100
\]

<table>
<thead>
<tr>
<th>(Sum (Breakout Variable Loan Current Investor UPB)) / (Sum (Current Investor UPB)) * 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Round to the one-hundredth decimal place.</td>
</tr>
<tr>
<td>• Note: The sum of the % of UPB for the mortgages within a PC may not add up to 100% due to rounding.</td>
</tr>
</tbody>
</table>

#### CLTV Unknown

- Loan CLTV considered “Unknown” if:
  - Mortgage loans backing a High LTV $> 105\%$ and $\leq 125\%$ Gold PC: CLTV is $< 6\%$ or $> 155\%$
  - Mortgage loans backing High LTV $> 125\%$ Gold PC: CLTV ratio is $< 6\%$ or $> 999\%$
  - All other loans: CLTV is $< 6\%$ or $> 135\%$
  - CLTV is $< \text{LTV}$
  - LTV is “Unknown”

#### Credit Score Unknown

- Credit Score considered “Unknown” if:
  - Credit score is unavailable or
  - Credit Score value is $< 300$ or $> 850$

#### Updated Credit Score Unknown

- Updated Credit Score considered “Unknown” if:
  - Updated Credit Score is unavailable or
  - Updated Credit Score $< 300$ or $> 850$

#### DTI Unknown

- Loan DTI considered “Unknown” if:
  - DTI falls outside the range of $> 0\%$ and $\leq 65\%$
  - Monthly Income is $< = $100
  - The loan’s reported Monthly Income or reported Monthly Debt is $> = $99,999.
  - Monthly Debt is $< \text{Monthly P&I Payment (at the time of delivery to Freddie Mac)}$ and the loan is not an Investment Property

#### Estimated LTV Unknown

- Estimated LTV considered “Unknown” if:
  - Estimated LTV is unavailable or
  - Estimated LTV $< 6\%$ or $> 300\%$

#### Initial Interest First P&I Payment

- For Initial Interest Fixed Rate PCs:
  - The PC Initial Interest First P&I Payment Date = Loan Initial Interest First P&I Payment Date
- For Initial Interest ARM PCs:
  - The PC Initial Interest First P&I Payment Date = Loan Initial Interest First P&I Payment Date + 1 month

#### LTV Unknown

- Loan LTV considered “Unknown” if:
  - FHA/VA loans: LTV is $< 6\%$ or $> 110\%$
  - Mortgage loans backing a High LTV $> 105\%$ and $\leq 125\%$ Gold PC: LTV is $< 6\%$ or $> 125\%$
  - Mortgage loans backing High LTV $> 125\%$ Gold PC: CLTV ratio is $< 6\%$ or $> 999\%$
  - All other loans: LTV is $< 6\%$ or $> 105\%$

#### Mortgage Insurance (MI) Unknown

- Loan MI considered “Unknown” if:
  - MI percentage is $> 55\%$

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For additional information on these data variables, contact Investor Inquiry at (800) 336-3672 or visit www.FreddieMac.com/mbs.

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