



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

Mailstop 3233

September 15, 2017

Via E-mail

Mr. Richard Lee Phegley, Jr.
Chief Financial Officer
Invesco Mortgage Capital Inc.
1555 Peachtree Street, N.E., Suite 1800
Atlanta, Georgia 30309

**Re: Invesco Mortgage Capital Inc.
Form 10-K
Filed February 21, 2017
File No. 001-34385**

Dear Mr. Phegley:

We have reviewed your August 10, 2017 response to our comment letter and have the following comment. In our comment, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this comment within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing your response to this comment, we may have additional comments. Unless we note otherwise, our references to our prior comment is to the comment in our July 28, 2017 letter.

Form 10-K for the fiscal year ended December 31, 2016

Financial Statements

Note 17 – Revision of Previously Issued Financial Statements, page 123

1. Please address the following with respect to your response to our prior comment:
 - In your response you indicate that you were alerted to potential errors in your accounting for non-Agency RMBS not of high credit quality due to negative book yields. Please expand on what you mean by “negative book yields” and explain why you believed they could be an indicator of an error.

- We note your review focused, in part, on whether a different modeling tool would be appropriate for forecasting cash flows for your investments. Please tell us how you determined the change to a new cash flow model or model program represented a correction of an error and not a change in estimate or change in policy.
- The above notwithstanding, please clarify for us whether the cash flow modeling errors noted as part of your review were limited to the accounting for changes to effective yield for non-Agency RMBS not of high credit quality. In your response please explain to us whether the failures noted in your modeling software had, or could have had, an impact on your other investments, or other accounting decisions for which you use cash flow modeling (e.g. fair value or impairment calculations).

You may contact Peter McPhun, Staff Accountant, at 202-551-3581 or the undersigned at 202-551-3438 with any questions.

Sincerely,

/s/ Robert F. Telewicz, Jr.

Robert F. Telewicz Jr.
Branch Chief
Office of Real Estate and
Commodities