



DIVISION OF
INVESTMENT MANAGEMENT

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

July 1, 2016

Morrison C. Warren, Esq.
Chapman and Cutler LLP
111 West Monroe Street
Chicago, Illinois 60603-4080

Re: Nuveen Unit Investment Trust, Series 149
File No. 333-211762

Dear Mr. Warren:

On June 1, 2016, you filed a registration statement on Form S-6 for Nuveen Unit Investment Trust, Series 149, consisting of a unit investment trust, the Nuveen Argus Modern Innovators, 3Q 2016 (the "Trust"). We have reviewed the registration statement and have provided our comments below. For convenience, we generally organized our comments using headings and defined terms from the registration statement.

Prospectus

Selection of Portfolio Securities (pp. 2-3)

1. Please disclose whether a company must be listed on an exchange for it to pass the initial comprehensive screen. If so, please disclose the exchange(s).
2. If there are specific "well-known studies" that the Sponsor and Argus review when screening for innovative companies, please disclose. Consider also disclosing whether the study or analyst must have identified a company "innovative" within a certain period of time before the initial date of deposit in order for the Sponsor and Argus to consider it.

Argus Investors' Counsel, Inc. (p. 3)

3. Please consider briefly explaining what uncovered small-cap companies, research outsourcing programs for sovereign wealth funds and the Global Research Analyst Settlement are.

Principal Risks (pp. 3-5)

4. We are unable to locate the risks associated with investing in mid-cap stocks and REITs. Please advise or revise.

Closing

We note that portions of the filing are incomplete. We may have additional comments on such portions when you complete them in a pre-effective amendment, on disclosures made in response to this letter, on information provided supplementally, or on exhibits added in any pre-effective amendment.

Response to this letter should be in the form of a pre-effective amendment filed pursuant to Rule 472 under the Securities Act. Where no change will be made in the filing in response to a comment, please indicate that fact in a supplemental letter and briefly state the basis for your position.

Please inform the staff of the information the Trust proposes to omit from the final pre-effective amendment pursuant to Rule 430A under the Securities Act.

Please advise us if you have submitted or expect to submit an exemptive application or no-action request in connection with the registration statement.

You should review and comply with all applicable requirements of the federal securities laws in connection with the preparation and distribution of a preliminary prospectus.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in these filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the Trust and its management are in possession of all facts relating to the Trust's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the Trust requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- The Trust is responsible for the adequacy and accuracy of the disclosure in the filing;
- Should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;

- The action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Trust from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- The Trust may not assert the action as a defense to any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Investment Management in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities.

Should you have any questions regarding this letter, please contact me at (202) 551-6751.

Sincerely,

/s/ Alison White

Alison White