UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934 For the month of March 2021 Commission File Number 001-33159 **AERCAP HOLDINGS N.V.** (Translation of Registrant's Name into English) AerCap House, 65 St. Stephen's Green, Dublin D02 YX20, Ireland, +353 1 819 2010 (Address of Principal Executive Office) Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F. Form 20-F ⊠ Form 40-F □ Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): \Box Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders. Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or

other Commission filing on EDGAR.

Other Events

In relation to recent media commentary, AerCap Holdings N.V. (the "Company") confirms that discussions are ongoing between the Company and General Electric ("GE") with respect to GE's GECAS business. The outcome of those discussions has yet to be determined, and there can be no guarantee that an agreement will be reached or on the terms of any agreement. No further statements will be made by the Company regarding this matter until the time of the conclusion of those discussions.

On March 9, 2021, the Company issued an announcement through the Companies Announcement Service of the Irish Stock Exchange plc, trading as Euronext Dublin. A copy of this announcement is attached as Exhibit 99.1.

Forward Looking Statements

This communication and Exhibit 99.1 contains forward-looking statements that involve risks and uncertainties. In some cases, forward-looking statements can be identified by the use of forward-looking terminology such as "may," "might," "should," "expect," "plan," "intend," "estimate," "anticipate," "believe," "predict," "potential" or "continue" or the negatives thereof or variations thereon or similar terminology. Any statements other than statements of historical fact included in this communication are forward-looking statements and are based on various underlying assumptions and expectations and are subject to known and unknown risks, uncertainties and assumptions, and may include projections of our future financial performance based on our growth strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied in the forward looking statements, including the impacts of, and associated responses to, the Covid-19 pandemic. As a result, we cannot assure you that the forward-looking statements included in this communication or Exhibit 99.1 will prove to be accurate or correct. Further information regarding these and other risks is included in the Company's annual report on Form 20-F and other filings with the SEC. In light of these risks, uncertainties and assumptions, the future performance or events described in the forward-looking statements in this communication and Exhibit 99.1 might not occur. Accordingly, you should not rely upon forward-looking statements as a prediction of actual results of the Company and we do not assume any responsibility for the accuracy or completeness of any of these forward-looking statements. Except as required by applicable law, we do not undertake any obligation to, a

Exhibits

99.1 AerCap Holdings N.V. Announcement.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AERCAP HOLDINGS N.V.

By: /s/ Aengus Kelly
Name: Aengus Kelly
Title: Authorized Signatory

Date: March 9, 2021

4

EURONEXT DUBLIN ANNOUNCEMENT

For Immediate Release 9 March 2021

AerCap Ireland Capital DAC AerCap Global Aviation Trust (the "Issuers")

Notice to Noteholders

In relation to recent media commentary, the Issuers confirm that discussions are ongoing between AerCap Holdings N.V. (the "Company") and General Electric ("GE") with respect to GE's GECAS business. The outcome of those discussions has yet to be determined and there can be no guarantee that an agreement will be reached or on the terms of any agreement. No further statements will be made by the Issuers or the Company regarding this matter until the time of the conclusion of those discussions.

This announcement may contain inside information for the purposes of Article 7 of the Market Abuse Regulation (EU) 596/2014.

Enquiries:

AerCap Holdings N.V. Risteard Sheridan
Tel: +353 1 636 0924

McCann FitzGerald Listing Services Limited

Tony Spratt
Tal: +353 1 60

Tel: +353 1 607 1367