
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, DC 20549

FORM 6 - K

**REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE
SECURITIES EXCHANGE ACT OF 1934**

For the month of December 2012

Commission File Number 001-33159

AERCAP HOLDINGS N.V.

(Translation of Registrant's Name into English)

Stationsplein 965, 1117 CE Schiphol Airport, The Netherlands, +31-20-655-9655

(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):

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

On December 6, 2012, AerCap Holdings N.V. ("AerCap") announced that it purchased approximately five million ordinary shares in AerCap held by Cerberus Capital Management, L.P. through its affiliate, Fern S.a.r.l., in a privately negotiated transaction. In addition, on December 4, 2012, AerCap purchased approximately three million ordinary shares in AerCap held by a non-affiliated shareholder in a privately negotiated transaction. Both purchases were made under the previously announced repurchase program pursuant to which AerCap could purchase up to \$200 million of its ordinary shares prior to June 30, 2013.

This Form 6-K is incorporated by reference into the Company's Form F-3 Registration Statement File No. 333-177659 and Form S-8 Registration Statements File Nos. 333-180323, 333-154416 and 333-165839, and related Prospectuses, as such Registration Statements and Prospectuses may be amended from time to time.

Exhibits

99.1 AerCap Holdings N.V. Press Release

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.

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

Date: December 6, 2012

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EXHIBIT INDEX

99.1 AerCap Holdings N.V. Press Release.

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PRESS RELEASE

AerCap Holdings N.V. Repurchases Eight Million Shares

AMSTERDAM, The Netherlands, December 6, 2012 - AerCap Holdings N.V. ("AerCap," "the Company," NYSE: AER) today purchased approximately five million ordinary shares in AerCap held by Cerberus Capital Management, L.P. through its affiliate, Fern S.a.r.l., in a privately negotiated transaction. The purchase price for the five million ordinary shares was \$12.71 per share as compared to a closing share price of the ordinary shares on the New York Stock Exchange of \$12.88 on December 5, 2012.

In addition, on December 4, 2012, AerCap purchased approximately three million ordinary shares in AerCap held by a non-affiliated shareholder in a privately negotiated transaction. The purchase price for the three million ordinary shares was \$12.85 per share as compared to a closing share price of the ordinary shares on the New York Stock Exchange of \$12.91 on December 3, 2012.

Both purchases were made under the previously announced repurchase program pursuant to which AerCap could purchase up to \$200 million of its ordinary shares prior to June 30, 2013. The repurchase program is now completed.

About AerCap

AerCap is one of the world's leading aircraft leasing companies and has one of the youngest fleets in the industry. AerCap has \$10 billion of assets and a fleet of 337 aircraft. AerCap is a New York Stock Exchange-listed company (AER) and has its headquarters in the Netherlands with offices in Ireland, the United States, China, Singapore and the United Arab Emirates.

This press release may contain forward-looking statements that involve risks and uncertainties. In most cases, you can identify forward-looking statements by terminology such as "may", "should", "expects", "plans", "anticipates", "believes", "estimates", "predicts", "potential" or "continue" or the negative of such terms or similar terminology. Such forward-looking statements are not guarantees of future performance and involve significant assumptions, risks and uncertainties, and actual results may differ materially from those in the forward-looking statements.

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