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 June 2015

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

AerCap Holdings N.V. included the following risk factor updates in the preliminary prospectus supplement it filed on June 1, 2015 with the U.S. Securities and Exchange Commission in connection with the proposed secondary offering of 50,000,000 of its ordinary shares by American International Group, Inc. ("AIG").

Capitalized terms used herein without definition shall have the definitions assigned to such terms in the preliminary prospectus supplement.

If the ownership of our ordinary shares continues to be highly concentrated, it may prevent minority shareholders from influencing significant corporate decisions and may result in conflicts of interest.

Currently, our largest shareholder is AIG, which owns 46% of our ordinary shares and is entitled, pursuant to the Shareholders' Agreement (as defined below), to designate for election at the Annual General Meeting of Shareholders two members of our Board of Directors for so long as it owns more than 10% of our ordinary shares. Once AIG ceases to own at least 10% of our outstanding ordinary shares, one of its designees will be required to resign from our Board of Directors. Upon completion of this offering, the selling shareholder will beneficially own approximately 22% of our outstanding ordinary shares (approximately 19% if the underwriters' option to purchase additional shares is exercised in full). See "Selling Shareholder—Beneficial Ownership". If the share repurchase is completed, upon completion of the share repurchase and this offering, the selling shareholder will beneficially own, assuming a public offering price of \$48.24, which was the closing sale price of our ordinary shares on the NYSE on May 29, 2015, approximately 16% of our outstanding ordinary shares (approximately 12% if the underwriters' option to purchase additional shares is exercised in full). Because of its ownership of our ordinary shares, its board designation rights and certain agreements with us described in "Selling Shareholder — Other Relationships with AIG" below, AIG may be able to significantly influence fundamental corporate matters and transactions, including the appointment of our directors, mergers, amalgamations, consolidations or acquisitions, the sale of all or substantially all of our assets, the amendment of our articles of association and our dissolution. This concentration of ownership may delay, deter or prevent acts that would be favored by our other shareholders, such as a change of control transaction that would result in the payment of a premium to our other shareholders. In addition, this concentration of share ownership may adversely affect the trading price of our ordinary shares if the

perception among investors exists that owning shares in a company with a significant shareholder is not desirable.

Sales of our ordinary shares may negatively affect their market price.

As a result of the ILFC Transaction (defined below), AIG acquired approximately 46% of our ordinary shares. The ordinary shares issued in the ILFC Transaction to AIG were subject to a lock-up agreement providing for the staggered expiration of lock-up periods beginning nine months and ending 15 months after the closing of the ILFC Transaction. Pursuant to the Share Repurchase Agreement described under "Selling Shareholder — Share Repurchase Agreement" below, we have agreed to waive this lock-up agreement to the extent necessary to permit this offering and the share repurchase. These lock-up restrictions applicable to AIG's remaining shares will expire on August 14, 2015. Sales by AIG of their ordinary shares, or the perception in the market that these sales could occur, may negatively affect the price of our ordinary shares.

The closing of this offering is not contingent on the closing of the share repurchase.

The closing of this offering is not contingent on the closing of the share repurchase. See "Selling Shareholder — Share Repurchase Agreement — Share Repurchase and Notes Issuance." As a consequence, no assurance can be given to purchasers of the ordinary shares in this offering that the proposed share repurchase transaction will in fact be consummated.

We are subject to various risks and requirements associated with transacting business in many countries.

Our international operations expose us to trade and economic sanctions and other restrictions imposed by the United States, the United Kingdom, or other governments or organizations. For example, the U.S. Departments of Justice, Commerce, State and Treasury and other federal agencies and authorities have a broad range of civil and criminal penalties they may seek to impose against corporations and individuals for violations of economic sanctions laws, export control laws, the Foreign Corrupt Practices Act ("FCPA"), and other federal statutes and regulations, including those established by the Office of Foreign Asset Control ("OFAC"). Under these laws and regulations, the government may require export licenses, may seek to impose modifications to business

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practices, including cessation of business activities in sanctioned countries, and modifications to compliance programs, which may increase compliance costs, and may subject us to fines, penalties and other sanctions. A violation of these laws or regulations could materially and adversely impact our business, operating results, and financial condition.

On May 21, 2015, OFAC designated Al Naser Airlines of Iraq, a person and entity related to Al Naser Airlines, and nine individual aircraft, including two aircraft that we had previously sold to Al Naser Airlines, as blocked persons. Also on May 21, 2015, the U.S. Department of Commerce's Bureau of Industry and Security ("BIS") added Al Naser Airlines and another related person and entity to its Denied Persons List. The OFAC and BIS designations were based on Al Naser's reported diversion of the nine aircraft to a sanctioned entity, Mahan Air, in Iran, after purchasing the aircraft from multiple sources, and based on Al Naser's attempted purchase of other aircraft for the same purpose. Based on our internal review to date, there is no indication that the Company or any of its employees were aware of any such diversion. The BIS and OFAC investigations are ongoing and, in connection therewith, on May 27, 2015, OFAC issued a subpoena to the Company requesting information, including information related to other transactions that may have led to aircraft being diverted to Iran. The Company is cooperating fully with the investigations, which are in their early stages.

We have implemented and maintain in effect policies and procedures designed to ensure compliance by us, our subsidiaries and our directors, officers, employees, consultants and agents with respect to various export control, anti-corruption, anti-terrorism and antimoney laundering laws and regulations. However, such personnel could engage in unauthorized conduct for which we may be held responsible. Violations of such laws and regulations may result in severe criminal or civil sanctions, and we may be subject to other liabilities, which could materially and adversely affect our financial results.

The information contained in this Form 6-K is incorporated by reference into the Company's Form F-3 Registration Statement File Nos. 333-177659 and 333-203113 and Form S-8 Registration Statements File Nos. 333-180323, 333-154416, 333-165839, 333-194637 and 333-194638, and related Prospectuses, as such Registration Statements and Prospectuses may be amended from time to time.

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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