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**FORM 6 - K**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, DC 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 May 2010**

**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

(1)  Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)

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):

Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Act of 1934.

Yes

No

If "Yes" is marked, indicated below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82 — N/A

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**Other Events**

On May 7, 2010, AerCap Holdings N.V. released its quarterly results for the period ending March 31, 2010.

**Exhibits**

99.1 AerCap Holdings N.V. Press Release

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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/ Klaus Heinemann

Name: Klaus Heinemann

Title: Authorized Signatory

**EXHIBIT INDEX**

99.1 AerCap Holdings N.V. Press Release.



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## PRESS RELEASE

### AerCap Holdings N.V. Reports First Quarter 2010 Financial Results

*Net spread, which is the margin earned on our leased assets, was \$133 million for the first quarter of 2010, an increase of 18% over the first quarter of 2009.*

**Amsterdam, Netherlands; May 7, 2010** - AerCap Holdings N.V. (the "Company" or "AerCap") (NYSE: AER) today announced the results of its operations for the first quarter ended March 31, 2010.

On March 25, 2010, AerCap completed an all-share acquisition of Genesis Lease Limited ("Genesis"), pursuant to which Genesis amalgamated with AerCap International Bermuda Limited, a subsidiary of AerCap (the "Genesis Transaction"). The resulting amalgamated company continues as a subsidiary of AerCap. The Genesis Transaction is fully reflected in the AerCap Holdings N.V. consolidated balance sheet as of March 31, 2010. The Genesis Transaction has no impact on the AerCap Holdings N.V. first quarter 2010 income statement (including the number of outstanding shares used for earnings per share calculations) other than a one line item reflecting a \$0.3 million amalgamation gain (net of transaction expenses and tax). The impact of the Genesis Transaction is also reflected in one line item in the AerCap Holdings N.V. first quarter 2010 consolidated cash flow statement (purchase of subsidiaries, net of cash acquired). From the second quarter of 2010, the Genesis Transaction will fully impact AerCap Holdings N.V.'s income statement and cash flow statement.

#### First Quarter 2010 Highlights

- First quarter 2010 net income was \$34.4 million, compared with net income of \$30.0 million for the same period in 2009. First quarter 2010 net income excluding the impact of the mark-to-market of interest rate caps and share-based compensation was \$46.7 million, compared to net income of \$31.5 million in the first quarter 2009 on the same basis.

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- First quarter 2010 basic and diluted earnings per share were \$0.40. First quarter 2010 basic and diluted earnings per share excluding the impact of the mark-to-market of interest rate caps and share-based compensation were \$0.55.
- Net spread, the difference between basic lease rents and interest expense excluding the impact from the mark-to-market of interest rate caps, was \$133.0 million in the first quarter of 2010 compared to \$112.5 million in the first quarter of 2009, an increase of 18%. This measure reflects the increase in leasing income.
- Basic lease rents for the first quarter of 2010 were \$165.8 million, compared to \$141.4 million for the same period in 2009, an increase of 17%. Total lease revenue (basic rents, maintenance rents and end-of-lease compensation) for the first quarter of 2010 was \$175.4 million, compared to \$161.2 million for the same period in 2009, an increase of 9%.
- Sales revenue for the first quarter of 2010 was \$182.4 million, compared to \$41.7 million for the same period in 2009, and was generated from the sale of five aircraft, three engines and parts inventory.
- Total revenue for the first quarter of 2010 was \$364.0 million, compared to \$208.5 million for the same period in 2009. The increase was mainly due to the increase in sales revenue and an increase in lease revenues from higher basic lease rents.
- Committed purchases of aviation assets delivered or scheduled for delivery in 2010 are \$2.2 billion, of which \$0.9 billion closed in the first quarter of 2010.
- Total assets were \$8.7 billion at March 31, 2010, an increase of 50% over total assets of \$5.8 billion at March 31, 2009. The Genesis Transaction accounted for \$1.6 billion of the increase in total assets (please refer to "Financial position" for details). The remaining \$1.3 billion increase was driven primarily by deliveries of forward order aircraft.

Klaus Heinemann, CEO of AerCap, commented: "AerCap increased its flight equipment portfolio by 71% to \$7.2 billion during the last twelve months, inclusive of the Genesis Transaction. For the remaining quarters of this year, we have further portfolio growth of \$1.3 billion contracted and placed. Our revenue grew by 75% compared to the same quarter last year reflecting an improved market for sales. With such improvement, we also increased our net income (excluding the mark-to-market of interest rate caps and share-based compensation) by 48%. Finally, with a continued focus on liquidity, we expanded our total cash position by 38% to \$440 million and

improved our debt/equity ratio from 3.6 to 3.3. As a result of these efforts, AerCap is firmly established as the leading independent global aviation lessor with a sound balance sheet and ample liquidity as we enter a new cyclical upturn in our industry.”

AerCap’s CFO, Keith Helming, said: “We are pleased with our first quarter results. Our net spread increased 18% year-on-year, highlighting the continued growth in our lease earnings. AerCap also strengthened its cash position in 2010 through the completion of the Genesis Transaction and the signing of a debt financing agreement which funds are available for general corporate purposes. In addition, the integration of the Genesis Transaction is progressing well and is expected to be completed during the second quarter of 2010.”

## Summary of Financial Results

AerCap recorded a first quarter 2010 net income of \$34.4 million or \$0.40 earnings per basic and diluted share. First quarter 2010 net income amount included net charges relating to mark-to-market of interest rate caps and share-based compensation of \$12.3 million or \$0.15 per basic and diluted share, net of tax. The after-tax charge relating to the mark-to-market of our interest rate caps was \$11.6 million which reflects changes in forecasted interest rates and the after-tax charge from share-based compensation was \$0.7 million.

## Detailed Financial Data

(\$ in Millions)

### Operating results

	Three months ended March 31,		
	2010	2009	% increase/ (decrease)
Revenues	\$ 364.0	\$ 208.5	75%
Net income	34.4	30.0	15%
Net income excluding the impact of mark-to-market of interest rate caps and share-based compensation	46.7	31.5	48%

Total revenue in the first quarter of 2010 increased 75% compared to the first quarter of 2009. This increase resulted primarily from an increase in sales revenue and higher basic lease rents.

Net income for the first quarter of 2010 excluding the impact of mark-to-market of interest rate caps and share-based compensation increased by 48%. This increase was caused by higher income from the sale of assets and an increase in net spread.

### Revenue breakdown

	Three months ended March 31,		
	2010	2009	% increase/ (decrease)
Lease revenue:			
Basic lease rents	\$ 165.8	\$ 141.4	17%
Maintenance rents	9.50	12.60	(25)%
End-of-lease compensation and other receipts	—	7.20	(100)%
Lease revenue	\$ 175.3	\$ 161.2	9%
Sales revenue	182.4	41.7	337%
Management fees and interest income	3.9	5.4	(28)%
Other revenue	2.4	0.2	100%
<b>Total revenue</b>	<b>\$ 364.0</b>	<b>\$ 208.5</b>	<b>75%</b>

Basic lease rents were \$165.8 million for the first quarter of 2010, an increase of 17% compared to the first quarter of 2009, as a result of our growing asset base. Our average lease assets increased by 32% to \$5.4 billion compared to the first quarter of 2009. As shown in the table below, interest expense excluding the impact of the mark-to-market of interest rate caps was \$32.8 million in the first quarter of 2010, a 13% increase compared to the first quarter of 2009. We refer to the difference in basic lease rents and interest expense on debt excluding the mark-to-market on interest rate caps as net spread, which increased 18% to \$133.0 million in the first quarter of 2010 over the same period in 2009.

	Three months ended March 31,		
	2010	2009	% increase/ (decrease)

<b>Basic lease rents</b>	<b>\$ 165.8</b>	<b>\$ 141.4</b>	<b>17%</b>
Interest on debt	\$ 51.4	\$ 29.5	74%
Plus: mark-to-market of interest rate caps	(18.6)	(0.6)	(3,000)%
Interest on debt excluding the impact of mark-to-market of interest rate caps	<u>\$ 32.8</u>	<u>\$ 28.9</u>	<u>13%</u>
<b>Net Spread</b>	<b>\$ 133.0</b>	<b>\$ 112.5</b>	<b>18%</b>

#### Effective tax rate

AerCap's blended effective tax rate during the first quarter of 2010 was 10.0% (charge), consisting of 11.3% (charge) for AerCap's aircraft business and -30.8% (income) for AerCap's engine and parts business. The blended effective tax rate in 2009 was 1.9% (charge).

#### Financial position

	<u>March 31, 2010</u>	<u>March 31, 2009</u>	<u>% Increase over March 31, 2009</u>
Flight equipment held for lease	\$ 7,198.4	\$ 4,204.7	71%
Total assets	8,709.5	5,790.1	50%
Total liabilities	6,849.7	4,629.1	48%
Total equity	1,859.8	1,161.0	60%

As of March 31, 2010, AerCap's portfolio consisted of 338 aircraft and 88 engines that were either owned, on order, under contract or letter of intent, or managed. This includes the 54 aircraft that AerCap added through the Genesis Transaction. The fair value of the Genesis assets acquired can be summarized as follows:

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	<u>Fair value of net assets acquired (In thousands of U.S. Dollars)</u>
Cash and cash equivalents	\$ 103,691
Restricted cash	31,456
Flight equipment held for operating leases	1,337,412
Intangibles (lease premium)	42,975
Deferred income taxes	34,089
Other assets	6,915
<b>Total assets</b>	<b>1,556,538</b>
Accrued maintenance liability	\$ (107,757)
Debt	(947,013)
Derivative liabilities	(66,196)
Other liabilities	(32,222)
<b>Total liabilities</b>	<b>(1,153,188)</b>
<b>Net assets acquired</b>	<b>\$ 403,350</b>
Consideration paid (34.4 million shares at a share price of \$10.83, exchange ratio 1:1)	(372,327)
<b>Amalgamation gain</b>	<b>\$ 31,023</b>
Transaction expenses, net of tax	(30,749)
<b>Amalgamation gain, net of transaction expenses and tax</b>	<b>\$ 274</b>

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#### Notes Regarding Financial Information Presented In This Press Release

The financial information presented in this press release is not audited.

The following is a definition of non-GAAP measures used in this press release and a reconciliation of such measure to the most closely related GAAP measure:

*Net income excluding the impact of mark-to-market of interest rate caps and share-based compensation.* This measure is determined by adding non-cash charges related to the mark-to-market losses on our interest rate caps and share based compensation during the applicable period, net of related tax benefits, to GAAP net income. In addition to GAAP net income, we believe this measure may provide investors with supplemental information regarding our operational performance and may further assist investors in their understanding of our operational performance in relation to past and future reporting periods. We use interest rate caps to allow us to benefit from decreasing interest rates and protect against the negative impact of rising interest rates on our floating rate debt. Management determines the appropriate level of caps in any period with reference to the mix of floating and fixed cash inflows from our lease and other contracts. We do not apply hedge accounting to our interest rate caps. As a result, we recognize the change in fair value of the interest rate caps in our income statement during each period. Following is a reconciliation of net income excluding the impact of mark-to-market of interest rate caps and share-based compensation to net income for the three month periods ended March 31, 2010 and 2009:

	Three months ended		
	March 31,		
	2010	2009	% increase/ (decrease)
Net income	\$ 34.4	\$ 30.0	(15)%
Plus: mark-to-market of interest rate caps, net of tax	11.6	0.7	1,557%
share-based compensation, net of tax	0.7	0.8	(13)%
<b>Net income excluding the impact of mark-to-market of interest rate caps and share-based compensation</b>	<b>\$ 46.7</b>	<b>\$ 31.5</b>	<b>48%</b>

Earnings per share excluding the impact of mark-to-market of interest rate caps and share-based compensation are determined by dividing the amount of net income excluding such impact by the average number of shares outstanding for that period. The average number of shares is based on a daily average.

*Net spread (refer to second table under Revenue breakdown section of this press release).* This measure is the difference between basic lease rents and interest expense excluding the impact from the mark-to-market of interest rate caps and non-recurring charges. We believe this measure may further assist investors in their understanding of the changes and trends related to the earnings of our leasing activities. This measure reflects the impact from changes in the number of aircraft leased, lease rates, utilization rates, as well as the impact from the use of interest rate caps instead of swaps to hedge our interest rate risk. The reconciliation of net spread to basic rents for the three month periods ended March 31, 2010 and 2009 is included above.

### **Conference Call**

In connection with the earnings release, management will host an earnings conference call today, Friday, May 7, 2010 at 9:30 am Eastern Time / 3:30 pm Central European Time. The call can be accessed live by dialing (U.S./Canada) 800-676-6978 or (International) +1-706-634-5464 and referencing code 66118682 at least 5 minutes before start time, or by visiting AerCap's website at <http://www.aercap.com> under "Investor Relations".

The presentation slides for the conference call will be posted on AerCap's website in advance of the call. A replay of the call will be available beginning at 10:30 am Eastern Time / 4:30 pm Central European Time on May 7, 2010 continuing through June 7, 2010. To access the recording, call 800-642-1687 (U.S./Canada) or +1-706-645-9291 (International) and enter passcode 66118682. The webcast replay will be archived in the "Investor Relations" section of the company's website for one year.

In addition, an Investor & Analyst Day presentation will be hosted by AerCap's management today, Friday, May 7, 2010, at 12:30 pm Eastern Time at The New York Palace (the Garrison Room), 455 Madison Avenue, New York. Doors will open at 12:00 pm.

To participate in either event, please register at: [www.sharedvalue.net/aercap/Q110results\\_I&A\\_Presentation](http://www.sharedvalue.net/aercap/Q110results_I&A_Presentation)

For further information, contact Peter Wortel: +31 20 655 9658 ([pwortel@aercap.com](mailto:pwortel@aercap.com)) or Mark Walter (Shared Value): +44 (0)20 7321 5039 ([aercap@sharedvalue.net](mailto:aercap@sharedvalue.net)).

### **About AerCap Holdings N.V.**

AerCap is the world's leading independent aircraft leasing company. AerCap also provides engine leasing, aircraft management services, aircraft maintenance, repair and overhaul services and aircraft disassemblies. AerCap is headquartered in The Netherlands and has offices in Ireland, the United States, Singapore, China and the United Kingdom.

### **Forward Looking Statements**

This press release contains certain statements, estimates and forecasts with respect to future performance and events. These statements, estimates and forecasts are "forward-looking statements". 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. All statements other than statements of historical fact included in this press release are forward-looking statements and are based on various underlying assumptions and expectations and are subject to known and unknown risks, uncertainties and assumptions, 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. As a result, there can be no assurance that the forward-looking statements included in this press release will prove to be accurate or correct. In light of these risks, uncertainties and assumptions, the future performance or events described in the forward-looking statements in this press release might not occur. Accordingly, you should not rely upon forward-looking statements as a prediction of actual results and we do not assume any responsibility for the accuracy or completeness of any of these forward-looking statements. We do not undertake any obligation to, and will not, update any forward-looking statements, whether as a result of new information, future events or otherwise.

For more information regarding AerCap and to be added to our email distribution list, please visit <http://www.aercap.com>.

### Financial Statements Follow

**AerCap Holdings N.V.**  
**Consolidated Balance Sheets - Unaudited**  
(In thousands of U.S. Dollars)

	<u>March 31, 2010</u>	<u>December 31, 2009</u>	<u>March 31, 2009</u>
<b>Assets</b>			
Cash and cash equivalents	\$ 225,908	\$ 182,617	\$ 175,081
Restricted cash	214,485	140,746	144,954
Trade receivables, net of provisions	51,709	48,070	46,657
Flight equipment held for operating leases, net	7,198,401	5,230,437	4,204,749
Flight equipment held for sale	—	—	76,566
Net investment in direct finance leases	33,099	34,532	30,152
Notes receivables, net of provisions	50,379	138,488	127,440
Prepayments on flight equipment	411,351	527,666	539,572
Investments	21,596	21,031	18,678
Goodwill	6,776	6,776	6,776
Intangibles, net	80,177	31,399	42,309
Inventory	97,988	102,538	94,148
Derivative assets	30,105	44,866	19,631
Deferred income taxes	111,362	80,098	81,231
Other assets	176,193	180,237	182,134
<b>Total Assets</b>	<b>\$ 8,709,529</b>	<b>\$ 6,769,501</b>	<b>\$ 5,790,078</b>
<b>Liabilities and Equity</b>			
Accounts payable	\$ 19,986	\$ 11,832	\$ 24,246
Accrued expenses and other liabilities	80,506	80,399	81,213
Accrued maintenance liability	371,847	228,006	207,042
Lessee deposit liability	146,285	126,093	102,397
Debt*	6,082,544	4,846,664	4,133,991
Accrual for onerous contracts	13,190	22,363	28,496
Deferred revenue	57,799	33,011	40,133
Derivative liabilities	77,587	7,801	11,557
<i>Total liabilities</i>	<i>6,849,744</i>	<i>5,356,169</i>	<i>4,629,075</i>
Share capital	1,163	699	699
Additional paid-in capital	965,875	593,133	635,406
Retained earnings	698,576	664,177	528,964
<i>Total AerCap Holdings N.V. shareholders' equity</i>	<i>1,665,614</i>	<i>1,258,009</i>	<i>1,165,069</i>
Non-controlling interest	194,171	155,323	(4,066)
<i>Total Equity</i>	<i>1,859,785</i>	<i>1,413,332</i>	<i>1,161,003</i>
<b>Total Liabilities and Equity</b>	<b>\$ 8,709,529</b>	<b>\$ 6,769,501</b>	<b>\$ 5,790,078</b>

\* Includes \$60.4 million of subordinated debt received from our joint venture partner relating to the TUI portfolio acquisition

<u>Supplemental information</u>	<u>March 31, 2010</u>	<u>December 31, 2009</u>	<u>March 31, 2009</u>
Debt/equity ratio			

Debt/equity ratio (adjusted for subordinated debt)	3.3	3.4	3.6
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**AerCap Holdings N.V.**
**Consolidated Income Statements - Unaudited**

(In thousands of U.S. Dollars, except share and per share data)

	Three months ended March 31,	
	2010	2009
<b>Revenues</b>		
Lease revenue	\$ 175,310	\$ 161,213
Sales revenue	182,454	41,717
Interest revenue	1,322	2,621
Management fee revenue	2,533	2,741
Other revenue	2,417	210
<b>Total Revenues</b>	<b>364,036</b>	<b>208,502</b>
<b>Expenses</b>		
Depreciation	63,377	51,247
Asset impairment	—	7,217
Cost of goods sold	156,138	33,824
Interest on debt	51,402	29,486
Operating lease in costs	3,151	3,314
Leasing expenses	10,490	19,161
Provision for doubtful notes and accounts receivable	740	1,232
Selling, general and administrative expenses	29,879	27,213
<b>Total Expenses</b>	<b>315,177</b>	<b>172,694</b>
<b>Income from continuing operations before income taxes</b>	<b>48,859</b>	<b>35,808</b>
Provision for income taxes	(4,886)	(1,860)
Amalgamation gain, net of transaction expenses and tax	274	—
<b>Net Income</b>	<b>44,247</b>	<b>33,948</b>
Net (income) attributable to non-controlling interest	(9,848)	(3,994)
<b>Net Income attributable to AerCap Holdings N.V.</b>	<b>\$ 34,399</b>	<b>\$ 29,954</b>
Basic and diluted earnings per share	\$ 0.40	\$ 0.35
Weighted average shares outstanding - basic and diluted	85,036,957	85,036,957

**AerCap Holdings N.V.**
**Consolidated Statements of Cash Flows**

(In thousands of U.S. Dollars)

	Three months ended March 31,	
	2010	2009
Net income	44,247	33,948
<b>Adjustments to reconcile net income to net cash provided by operating activities</b>		
Depreciation	63,377	51,247
Asset impairment	—	7,217
Amortisation of debt issuance cost	5,306	3,834
Amortisation of intangibles	3,203	4,790
Provision for doubtful notes and accounts receivable	696	1,232
Capitalised interest on pre-delivery payments	(160)	(371)
Gain on disposal of assets	(20,223)	448
Change in fair value of derivative instruments	22,339	(1,002)
Deferred taxes	4,765	1,241



<b>Changes in assets and liabilities</b>	879	1,002
Trade receivables and notes receivable, net	1,650	4,284
Inventories	5,413	14,484
Other assets and derivative assets	7,638	(4,188)
Other liabilities	(14,300)	(26,199)
Deferred revenue	12,746	5,212
<b>Net cash provided by operating activities</b>	<b>137,576</b>	<b>97,179</b>
Purchase of flight equipment	(629,729)	(288,087)
Proceeds from sale/disposal of assets	142,626	1,792
Prepayments on flight equipment	(48,527)	(158,504)
Purchase of subsidiaries, net of cash acquired	70,618	—
Purchase of intangibles	(9,006)	—
Movement in restricted cash	(42,283)	(31,557)
<b>Net cash used in investing activities</b>	<b>(516,301)</b>	<b>(476,356)</b>
Issuance of debt	719,378	445,700
Repayment of debt	(342,819)	(96,485)
Debt issuance costs paid	(9,931)	(3,370)
Maintenance payments received	30,584	23,768
Maintenance payments returned	(9,924)	(14,552)
Security deposits received	9,388	8,014
Security deposits returned	(2,564)	(2,961)
Capital contributions from non-controlling interests	29,000	—
<b>Net cash provided by financing activities</b>	<b>423,112</b>	<b>360,114</b>
Net increase (decrease) in cash and cash equivalents	44,387	(19,063)
Effect of exchange rate changes	(1,096)	581
Cash and cash equivalents at beginning of period	182,617	193,563
<b>Cash and cash equivalents at end of period</b>	<b>225,908</b>	<b>175,081</b>

Certain reclassifications have been made to prior years consolidated statements of cash flow to reflect the current year presentation.