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



Form 8-K

Current Report

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 21, 2010

Caterpillar Financial Services Corporation

(Exact name of Registrant as specified in its charter)

0-13295 (Commission File Number)

Delaware (State or other jurisdiction of incorporation)

37-1105865 (IRS Employer Identification Number)

2120 West End Avenue Nashville, Tennessee 37203-0001 (Address of principal executive offices, with zip code)

(615) 341-1000 (Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02. Results of Operations and Financial Condition. Item 7.01. Regulation FD Disclosure.

On October 21, 2010, Caterpillar Financial Services Corporation issued a press release reporting financial results for the quarter ended September 30, 2010 (furnished hereunder as Exhibit 99.1).

The information contained in this Current Report shall not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be incorporated by reference into a filing under the Securities Act of 1933, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

The furnishing of these materials is not intended to constitute a representation that such furnishing is required by Regulation FD or that the materials include material investor information that is not otherwise publicly available. In addition, the Registrant does not assume any obligation to update such information in the future.

Item 9.01. Financial Statements and Exhibits.

Exhibits: 99.1 2010 Third Quarter Results Press Release dated October 21, 2010

SIGNATURES

c)

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.

Caterpillar Financial Services Corporation

Date: October 21, 2010

By: /s/ Michael G. Sposato_

Michael G. Sposato Secretary

Exhibit 99.1

October 21, 2010

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FOR IMMEDIATE RELEASE

Cat Financial Announces Third-Quarter 2010 Results

Cat Financial reported third-quarter revenues of \$640 million, a decrease of \$36 million, or 5 percent, compared with the third quarter of 2009. Third-quarter profit after tax was \$73 million, a \$3 million decrease from the third quarter of 2009.

The decrease in revenues was principally due to a \$46 million impact from lower earning assets (finance receivables and operating leases at constant interest rates) and a \$13 million unfavorable impact from lower interest rates on new and existing finance receivables, partially offset by a \$24 million favorable change from returned or repossessed equipment.

Profit before income taxes was \$89 million for the third quarter of 2010, compared to \$80 million for the third quarter of 2009. The increase was principally due to a \$24 million favorable change from returned or repossessed equipment, an \$8 million decrease in the provision for credit losses and a \$6 million increase in other miscellaneous revenue items. These increases in pre-tax profit were partially offset by a \$17 million unfavorable impact from lower average earning assets and a \$10 million increase in general, operating and administrative expense.

The provision for income taxes in the third quarter reflects an estimated annual effective tax rate of 24 percent, reduced by a benefit of \$12 million related to a prior year. The estimated annual tax rate of 24 percent is up from 20 percent in the third quarter of 2009 and 22 percent in the second quarter of 2010.

New retail financing was \$2.5 billion, an increase of \$706 million, or 40 percent, from the third quarter of 2009. The increase was primarily related to improvement in our North America, Europe and Asia-Pacific operating segments.

At the end of the third quarter of 2010, past dues were 4.88 percent, down from 5.33 percent at the end of the second quarter and 5.54 percent at the end of 2009. At the end of the third quarter of 2009, past dues were 5.79 percent. The reduction in past dues from year-end is primarily due to the general improvement in global economic conditions.

Bad debt write-offs, net of recoveries, were \$78 million for the third quarter of 2010, up \$13 million from the third quarter of 2009. The increase in write-offs reflects the lingering effect the economic downturn has had on some of our customers, most notably U.S. and European customers in the housing and general construction industries. Third-quarter year-to-date 2010 annualized losses were 1.03 percent of the average retail portfolio, compared to 0.90 percent for the same period in 2009 and 1.03 percent for the full-year 2009.

At the end of the third quarter of 2010, Cat Financial's allowance for credit losses was 1.61 percent of net finance receivables, decreasing from 1.64 percent on December 31, 2009, and 1.62 percent at the end of the third quarter of 2009. At the end of the third quarter of 2010, the allowance for credit losses totaled \$367 million, compared with \$377 million on December 31, 2009, and \$381 million at the end of the third quarter of 2009. The decrease of \$14 million in allowance for credit losses year over year reflected an \$11 million decrease due to a reduction in the overall net finance receivable portfolio and a \$3 million decrease associated with the lower allowance rate.

"Portfolio performance continued to strengthen during the third quarter," said Kent Adams, Cat Financial president and vice president of Caterpillar Inc. "Pretax profitability increased \$9 million as this improvement more than offset the impact of lower average earning assets. Our past dues have decreased to the lowest level since 2008 and our third quarter new retail financing is up 40 percent from last year. As business continues to improve, we'll maintain our focus on serving our Caterpillar customers and dealers, managing the portfolio and ensuring we have ample liquidity."

For over 25 years, Cat Financial, a wholly-owned subsidiary of Caterpillar Inc., has been providing a wide range of financing alternatives to customers and Caterpillar dealers for Caterpillar machinery and engines, Solar® gas turbines and other equipment and marine vessels. Cat Financial has offices and subsidiaries located throughout the Americas, Asia, Australia and Europe, with headquarters in Nashville, Tennessee.

STATISTICAL HIGHLIGHTS:

THIRD QUARTER 2010 VS. THIRD QUARTER 2009 (ENDING SEPTEMBER 30)

(Millions of dollars)

	2010	2009	CHANGE
Revenues	\$ 640	\$ 676	(5%)
Profit Before Income Taxes	\$ 89	\$ 80	11%
Profit After Tax	\$ 73	\$ 76	(4%)
New Retail Financing	\$ 2,484	\$ 1,778	40%
Total Assets	\$28,773	\$30,937	(7%)

NINE MONTHS 2010 VS. NINE MONTHS 2009 (ENDING SEPTEMBER 30)

(Millions of dollars)

	2010	2009	CHANGE
Revenues	\$ 1,919	\$ 2,057	(7%)
Profit Before Income Taxes	\$ 255	\$ 273	(7%)
Profit After Tax	\$ 208	\$ 216	(4%)
New Retail Financing	\$ 6,754	\$ 5,194	30%

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained in this earnings release may be considered "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements may relate to future events or our future financial performance, which may involve known and unknown risks and uncertainties and other factors that may cause our actual results, levels of activity, performance or achievement to be materially different from those expressed or implied by any forward-looking statements. In this context, words such as "believes," "expects," "estimates," "anticipates," "will," "should" and similar words or phrases often identify forward-looking statements made on behalf of Cat Financial. These statements are only predictions. Actual events or results may differ materially due to factors that affect international businesses, including changes in economic conditions, laws and regulations and political stability, as well as factors specific to Cat Financial and the markets we serve, including the market's acceptance of the Company's products and services, the creditworthiness of customers, interest rate and currency rate fluctuations and estimated residual values of leased equipment. Those risk factors may not be exhaustive. We operate in a continually changing business environment and new risk factors emerge from time to time. We cannot predict these new risk factors, nor can we assess the impact, if any, of these new risk factors on our businesses or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those projected in any forward-looking statements. Accordingly, forward-looking statements should not be relied upon as a prediction of actual results. Moreover, we do not assume responsibility for the accuracy and completeness of those statements. All of the forward-looking statements are qualified in their entirety by reference to the factors discussed under the captions "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our annual report on Form 10-K for the fiscal year ended December 31, 2009, and similar sections in our quarterly reports on Form 10-Q that describe risks and factors that could cause results to differ materially from those projected in the forward-looking statements. We do not undertake to update our forward-looking statements.