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): May 10, 2011

HORIZON TECHNOLOGY FINANCE CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

814-00802 (Commission File Number)

27-2114934 (I.R.S. Employer Identification No.)

312 Farmington Avenue

Farmington, CT 06032

(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (860) 676-8654

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

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	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))

Section 2 Financial Information

Item 2.02 Results of Operations and Financial Condition

On May 10, 2011, Horizon Technology Finance Corporation (the "Company") issued a press release announcing its financial results for the three months ended March 31, 2011. A copy of this press release is attached hereto as Exhibit 99.1.

The information in Item 2.02 of this Current Report on Form 8-K, including Exhibit 99.1 furnished herewith, is being furnished and shall not be deemed "filed" for any purpose of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to liabilities of such Section. The information in this Current Report on Form 8-K shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Section 9 Financial Statements and Exhibits

Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

99.1 Press release of the Company dated May 10, 2011.

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 hereunto duly authorized.

Date: May 10, 2011 HORIZON TECHNOLOGY FINANCE CORPORATION

By: /s/ Robert D. Pomeroy, Jr. Robert D. Pomeroy, Jr. Chief Executive Officer

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Horizon Technology Finance Announces Quarterly Dividend of \$0.33 Per Share and First Quarter 2011 Financial Results

Continues Strong Earnings Momentum and Portfolio Growth

FARMINGTON, Conn., May 10, 2011 — Horizon Technology Finance Corporation (Nasdaq: HRZN) (the "Company" or "Horizon"), a leading specialty finance company that provides secured loans to venture capital and private equity backed development-stage companies in the technology, life science, healthcare information and services, and clean-tech industries, today announced its financial results and declared a cash dividend for the quarter ended March 31, 2011.

First Quarter 2011 Highlights

- Increase in net assets from operations was \$3.6 million, or \$0.48 per common share, an increase of 38.6% from \$2.6 million in the first quarter of
- Net investment income was \$2.2 million, or \$0.29 per common share
- Net realized gain on investments was \$0.2 million, or \$0.03 per common share
- Net asset value increased to \$130.8 million, or \$17.23 per share
- Closed loan commitments totaling \$52 million
- Funded \$28.8 million in loan investments
- Unfunded loan approvals and commitments ("Committed Backlog") increased to \$48 million
- Declared a first quarter dividend of \$0.33 per share, which equated to a 8.25% yield using the Company's closing price of \$16.00 per share on May 10, 2011

Robert D. Pomeroy, Jr., Chairman and Chief Executive Officer, commented, "During the first quarter, our first full quarter as a public company, Horizon delivered strong financial results as management continues to deploy capital in a prudent manner. We have experienced a surge of investment activity in our target markets that has enabled our Company to significantly expand its earning assets. Based on our notable performance, Horizon's Board declared a first quarter dividend of \$0.33 per share, increasing our cumulative dividend to \$0.55 per share since going public. In addition to our success in funding new loans and providing shareholders with attractive dividends, we further expanded our investment pipeline with a Committed Backlog as of March 31, 2011 totaling \$48 million, which bodes well for future results."

Operating Results

Total investment income, consisting of interest income and fees, increased 43.9% for the quarter ended March 31, 2011 to \$5.5 million, as compared to \$3.8 million for the quarter ended March 31, 2010. The year-over-year increase in investment income is primarily due to the increased average size of the Company's loan portfolio. For the quarter ended March 31, 2011, total investment income consisted primarily of \$4.5 million in interest income from investments, \$0.4 million in income from the amortization of discounts and origination fees on investments, and \$0.5 million in other income related to a one-time success fee received upon the completion of an acquisition of one of Horizon's portfolio companies.

The Company's weighted average portfolio yield, excluding warrant gains, was 15.4% for the quarter ended March 31, 2011, and 13.6% for the quarter ended March 31, 2010.

Total expenses were \$3.2 million for the quarter ended March 31, 2011, as compared to \$1.7 million for the quarter ended March 31, 2010. Total expenses consisted principally of interest expense and management and incentive fees. Professional fees and general and administrative expenses increased year-over-year primarily due to the cost associated with operating as a public company.

Net investment income for the quarter ended March 31, 2011 was \$2.2 million, or \$0.29 per common share. For the quarter ended March 31, 2010, net investment income was \$2.1 million.

For the quarter ended March 31, 2011, the net realized gain on investments was \$0.2 million, or \$0.03 per common share, from the exercise of warrants in portfolio companies. The Company did not realize any gains on investments for the quarter ended March 31, 2010.

For the quarter ended March 31, 2011, the net unrealized appreciation on investments was \$1.2 million, or \$0.16 per common share. This compares to net unrealized appreciation on investments of \$0.2 million for the quarter ended March 31, 2010. The year-over-year increase is primarily due to an increase in the enterprise value of private companies in which we hold warrants as well as an increase in the share value of public company warrants and equities for which we hold.

For the quarter ended March 31, 2011, the net increase in net assets resulting from operations was \$3.6 million, as compared to a net increase in net assets resulting from operations of \$2.6 million for the year-earlier period. The increase in net assets from operations is attributable to the growth in net investment income as a result of an expanding portfolio.

Portfolio Summary and Investment Activity

As of March 31, 2011, the Company's debt portfolio consisted of 34 secured loans with an aggregate fair value of \$144.7 million. In addition, the Company's warrant portfolio of 45 investments had an aggregate fair value of \$6.5 million as of March 31, 2011.

Total portfolio investment activity as of and for the quarter ended March 31, 2011 was as follows:

(\$ in thousands)	
Beginning portfolio	\$136,810
New loan funding	28,833
Less refinanced balances	(2,770)
Net new loan funding	26,063
Principal and stock payments received on investments	(7,759)
Early pay-offs	(3,347)
Accretion of loan fees	395
New loan fees	(513)
New equity	577
Net appreciation on investments	990
Ending Portfolio	\$153,216

Portfolio Asset Quality

As of March 31, 2011 and March 31, 2010, the weighted average credit rating on the fair value of the Company's loan portfolio was 3.2 and 3.1, respectively, with 4 being the highest credit quality rating and 3 being the rating for a standard level of risk. A rating of 2 or 1 represents a deteriorating credit quality and increased risk. The Company did not have any investments on non-accrual status as of these dates.

Liquidity and Capital Resources

As of March 31, 2011, the Company had cash and cash equivalents of approximately \$69.5 million.

On March 3, 2011, the initial three-year revolving term for the Company's Credit Facility ended. The balance as of March 31, 2011 will be amortized based on payments from our portfolio companies through March 3, 2015.

We continue to work closely with leading lenders to increase our borrowing capacity under favorable terms. We have identified a lead lender for a new credit facility and are in negotiation of terms. In addition, we continue to work with the Small Business Administration towards an SBIC license. On April 21, 2011, the SBA advised us that it required additional information in order to process the SBIC Application and provided the Company up to 90 days to provide the information. During the period of time that the Company takes to provide the requested information the application process is suspended. There can be no assurance that we will obtain either of these potential financing facilities.

First Quarter Dividend

On May 10, 2011, Horizon's Board of Directors declared a first quarter dividend of \$0.33 per share, payable on May 26, 2011 to stockholders of record on May 19, 2011. The Company expects the dividend to be paid from taxable earnings with specific tax characteristics reported to stockholders after the end of the 2011 calendar year.

Conference Call

Management will host a conference call on Wednesday, May 11, 2011 at 9:00 a.m. ET to discuss the latest corporate developments and financial results. The dial-in number for callers in the U.S. is (877) 677-9112 and the dial-in number for international callers is (708) 290-1396. The access code for all callers is 61580102. A live webcast will also be available on the Company's website at www.horizontechnologyfinancecorp.com.

A replay of the call will be available through May 18, 2011. To access the replay, please dial (800) 642-1687 in the U.S. and (706) 645-9291 outside the U.S., and then enter the access code 61580102.

About Horizon Technology Finance Corporation

Horizon Technology Finance Corporation is a closed-end investment company that has elected to be treated as a business development company under the Investment Company Act of 1940. The Company provides secured loans to development-stage companies backed by established venture capital and private equity firms within the technology, life science, healthcare information and services, and clean-tech industries. The investment objective of Horizon Technology Finance is to maximize total risk-adjusted returns by generating current income from a portfolio of directly originated secured loans as well as capital appreciation from warrants to purchase the equity of portfolio companies. Headquartered in Farmington, CT, with a regional office in Walnut Creek, CA, the Company is externally managed by its investment advisor, Horizon Technology Finance Management LLC. To learn more, please visit www.horizontechnologyfinancecorp.com.

Forward-Looking Statements

Statements included herein may constitute "forward-looking statements," which relate to future events or our future performance or financial condition. These statements are not guarantees of future performance, condition or results and involve a number of risks and uncertainties. Actual results may differ materially from those in the forward-looking statements as a result of a number of factors, including those described from time to time in our filings with the Securities and Exchange Commission. The Company undertakes no duty to update any forward-looking statement made herein. All forward-looking statements speak only as of the date of this press release.

Horizon Technology Finance Corporation and Subsidiaries Consolidated Statements of Assets and Liabilities (Unaudited) (In thousands, except share data)

	Maı	rch 31, 2011	Decen	nber 31, 2010
ASSETS				
Non-affiliate investments at fair value (cost of \$148,783 and \$133,494 respectively)	\$	153,216	\$	136,810
Cash and cash equivalents		69,503		76,793
Interest receivable		2,281		1,938
Other assets		444		664
Total assets	\$	225,444	\$	216,205
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LIABILITIES				
Borrowings	\$	92,712	\$	87,425
Base management fee payable	Ψ	376	Ψ	360
Incentive fee payable		529		414
Interest rate swap liability		180		258
Other accrued expenses		825		553
Total liabilities		94,621		89,010
Net assets				
Common Stock, par value \$0.001 per share, 100,000,000 shares authorized, 7,593,421 shares outstanding as				
of March 31, 2011 and December 31, 2010	\$	8	\$	8
Paid-in capital in excess of par		123,836		123,836
Accumulated undistributed net investment income		2,085		(143)
Net unrealized appreciation on investments		4,237		3,043
Net realized gains on investments		657		451
Total net assets		130,823		127,195
Total liabilities and net assets	\$	225,444	\$	216,205
Net asset value per common share		17.23	\$	16.75

Horizon Technology Finance Corporation and Subsidiaries Consolidated Statements of Operations (Unaudited)

(In thousands, except share data)

	Three Months Ended March 31, 2011(1)	Three Months Ended March 31, 2010(1)
Investment income		
Interest income on non-affiliate investments	\$ 4,893	\$ 3,745
Interest income on cash and cash equivalents	65	9
Fee income on non-affiliate investments	502	39
Total investment income	5,460	3,793
Expenses		
Interest expense	810	1,003
Base management fee	1,075	547
Performance based incentive fee	529	_
Administrative fee	295	
Professional fees	318	73
General and administrative	205	57
Total expenses	3,232	1,680
Net investment income	2,228	2,113
Credit for loan losses		303
Net realized and unrealized gain on investments		
Net realized gain on investments	206	_
Net unrealized appreciation on investments	1,194	202
Net realized and unrealized gain on investments	1,400	202
Net increase in net assets resulting from operations	\$ 3,628	\$ 2,618
Net investment income per common share(2)	\$ 0.29	N/A
Change in net assets per common share(2)	\$ 0.48	N/A
Weighted average shares outstanding(2)	7,593,422	N/A

⁽¹⁾ The results of operations for the quarter ended March 31, 2011 reflect Horizon's qualification to be treated as a Business Development Company (BDC) under the 1940 Act immediately following the Company's initial public offering (IPO), which was effective on October 28, 2010, whereas the operating results for the quarter ended March 31, 2010 reflect the Company's results prior to operating as a BDC under the 1940 Act. Accounting principles used in the preparation of these two periods are different, primarily as it relates to the carrying value of loan investments and classification of hedging activity. Therefore, the results of operations and financial position for the quarters ended March 31, 2011, and March 31, 2010, are not directly comparable.

Horizon Technology Finance Corporation Christopher M. Mathieu Chief Financial Officer (860) 676-8653 chris@horizontechfinance.com Investor Relations and Media Contacts: The IGB Group Leon Berman / Michael Cimini (212) 477-8438 / (212) 477-8261 lberman@igbir.com / mcimini@igbir.com

⁽²⁾ For the three months ended March 31, 2010, the Company did not have common shares outstanding or an equivalent and therefore earnings per share and weighted average shares outstanding information for this period is not provided.