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

FORM 11-K

(Mark
One)

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2010

OR

TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____.

Commission File No. 1-768

**CATERPILLAR INC.
TAX DEFERRED SAVINGS PLAN**

(Full title of the plan and address of the plan, if different from that of the issuer named below)

CATERPILLAR INC.
100 NE Adams Street, Peoria, Illinois 61629
(Name of issuer of the securities held pursuant to the plan and address of its principal executive office)

Caterpillar Inc.
Tax Deferred Savings Plan
Financial Statements and Supplemental Schedule
December 31, 2010 and 2009

Caterpillar Inc.
Tax Deferred Savings Plan
Index

Page(s)

Report of Independent Registered Public Accounting Firm

Financial Statements

Statements of Net Assets Available for Benefits
December 31, 2010 and 2009 1

Statements of Changes in Net Assets Available for Benefits
Years Ended December 31, 2010 and 2009..... 2

Notes to Financial Statements
December 31, 2010 and 2009 3-16

Supplemental Schedule

Schedule H, Line 4i - Schedule of Assets (Held at End of Year)
December 31, 2010 18

Signatures 19

Exhibit

23 - Consent of Independent Registered Public Accounting Firm

Note: Other schedules required by 29 CFR 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because they are not applicable.

Report of Independent Registered Public Accounting Firm

To the Participants, Plan Administrator
and Benefit Funds Committee of the
Caterpillar Inc. Tax Deferred Savings Plan

In our opinion, the accompanying statements of net assets available for benefits and the related statements of changes in net assets available for benefits present fairly, in all material respects, the net assets available for benefits of the Caterpillar Inc. Tax Deferred Savings Plan (the "Plan") at December 31, 2010 and 2009, and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The Supplemental Schedule H, Line 4i – Schedule of Assets (Held at End of Year) is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ PricewaterhouseCoopers LLP

Peoria, Illinois
June 24, 2011

Caterpillar Inc.
Tax Deferred Savings Plan
Statements of Net Assets Available for Benefits
December 31, 2010 and 2009

<i>(in thousands of dollars)</i>	<u>2010</u>	<u>2009</u>
Investments		
Interest in the Master Trust	\$ 436,492	\$ 348,138
Other investments – participant directed brokerage accounts	5,159	5,036
Total investments	<u>441,651</u>	<u>353,174</u>
Receivables		
Participant notes receivable	6,352	6,586
Participant contributions receivable	–	3
Total receivables	<u>6,352</u>	<u>6,589</u>
Net assets available for benefits, at fair value	448,003	359,763
Adjustment from fair value to contract value for fully benefit-responsive synthetic guaranteed investment contracts	1,355	5,412
Net assets available for benefits	<u>\$ 449,358</u>	<u>\$ 365,175</u>

The accompanying notes are an integral part of these financial statements.

Caterpillar Inc.
Tax Deferred Savings Plan
Statements of Changes in Net Assets Available for Benefits
Years Ended December 31, 2010 and 2009

<i>(in thousands of dollars)</i>	<u>2010</u>	<u>2009</u>
Investment income		
Plan interest in net investment income of the Master Trust	\$ 105,278	\$ 62,996
Net investment income from participant directed brokerage accounts	<u>667</u>	<u>1,414</u>
Net investment income	<u>105,945</u>	<u>64,410</u>
Interest income		
Participant notes receivable	<u>309</u>	<u>376</u>
Contributions		
Participant	11,563	10,097
Legal settlement	<u>1,224</u>	<u>-</u>
Total contributions	<u>12,787</u>	<u>10,097</u>
Deductions		
Withdrawals	(34,615)	(22,877)
Administrative expenses	<u>(243)</u>	<u>(188)</u>
Total deductions	<u>(34,858)</u>	<u>(23,065)</u>
Net increase in net assets available for benefits	<u>84,183</u>	<u>51,818</u>
Net assets available for benefits		
Beginning of year	<u>365,175</u>	<u>313,357</u>
End of year	<u>\$ 449,358</u>	<u>\$ 365,175</u>

The accompanying notes are an integral part of these financial statements.

Caterpillar Inc.
Tax Deferred Savings Plan
Notes to Financial Statements
December 31, 2010 and 2009

1. Plan Description

The following description of the Caterpillar Inc. Tax Deferred Savings Plan (the "Plan") provides only general information. Participants should refer to the Plan documents for a more complete description of the Plan's provisions.

General

The Plan is a contributory defined contribution plan established by Caterpillar Inc. (the "Company") to enable eligible employees of the Company and its subsidiaries (the "participating employers"), which adopt the Plan to accumulate funds for retirement. The Plan is subject to the provisions of the Employee Retirement Income Security Act, as amended ("ERISA").

Participation

Employees of the participating employers who are covered under collective bargaining agreements to which the Plan is extended who meet certain age, service and citizenship or residency requirements are eligible to participate in the Plan. Participation commences upon an eligible employee initiating the enrollment process promulgated by the Plan Administrator. Participating eligible employees (the "participants") elect to defer a portion of their compensation until retirement through pre-tax contributions.

Participant Accounts

Accounts are separately maintained for each participant. The participant's account is credited with the participant's contribution as defined below, an allocation of Plan earnings and charged with an allocation of administrative expenses. Allocations are based on participant account balances, as defined. Participant benefits are limited to their vested account balance.

Contributions

Participant contributions are made through a pre-tax compensation deferral as elected by the participants. Participants who are at least 50 years old by the end of the calendar year are allowed by the Plan to make a catch-up contribution for that year. Contributions are subject to certain limitations set by the Internal Revenue Code. Participants do not receive Company matching contributions.

Participants direct the investment of their contributions into various investment options offered by the Plan as discussed in Note 3. Participants may change their contribution elections and prospective investment elections on a daily basis and reallocate the investment of their existing account balance either daily or every seven business days (if subject to applicable trading restrictions) depending on the investment.

Vesting and Distribution Provisions

Participants are fully vested in their participant contributions and earnings thereon. Upon termination of employment for any reason, including death, retirement, or upon Plan termination, the balance in participants' accounts is distributable in a single lump sum cash payment unless the participant (or beneficiary) elects to receive Company shares in kind up to the amount of the participant's balance in the Caterpillar Stock Fund. The value of any full or fractional shares paid in cash will be based upon the average price per share the Trustee receives from sales of Company shares for the purpose of making the distribution. Participants also have the option to leave their vested account balance in the Plan, subject to certain limitations.

Participant Notes Receivable

The Plan provides for participant loans against eligible participants' account balances. Eligible participants obtain loans by filing a loan application with the Plan's recordkeeper and receiving all requisite approvals. Loan amounts are generally limited to the lesser of \$50,000 or 50 percent of the individual participant's vested account balance, with certain regulatory restrictions. Each loan specifies a repayment period that cannot extend beyond five years. However, the five-year limit shall not apply to any loan used to acquire any dwelling unit which within a reasonable time is to be used (determined at the time the loan is made) as the principal residence of the participant. Loans bear interest at the prime interest rate plus 1 percent, as determined at the time of loan origination. Loans that transferred to the Plan due to acquisitions are based upon the terms of the plan agreement in effect at the time of loan origination which may be different than the terms of the Plan. Repayments, including interest, are made through after-tax payroll deductions and are credited to the individual participant's account balance. Participant loans are measured at their unpaid principal balance plus any accrued but unpaid interest. At December 31, 2010, participant loans have various maturity dates through March 8, 2019, with varying interest rates ranging from 4.25 to 11.00 percent.

Administration

The Plan is administered by Caterpillar Inc., which is responsible for non-financial matters, and the Benefit Funds Committee of Caterpillar Inc., which is responsible for financial aspects of the Plan. Caterpillar Inc. and the Benefit Funds Committee have entered into a trust agreement with The Northern Trust Company (the "Trustee") to receive contributions, administer the assets of the Plan and distribute withdrawals pursuant to the Plan.

Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan at any time to terminate the Plan subject to provisions of ERISA and the provisions of the collective bargaining agreements. In the event of Plan termination, Plan assets will be distributed in accordance with the provisions of the Plan.

Plan Qualification

The Plan obtained its latest determination letter on July 9, 2009, in which the Internal Revenue Service stated that the Plan and related trust, as then designed, were in compliance with the applicable requirements of the Internal Revenue Code. Although the Plan has been amended subsequent to the period covered by the determination letter, the Plan Administrator and the Plan's counsel believe that the Plan is designed and is currently being operated in compliance with the applicable requirements of the Internal Revenue Code and therefore believe that the Plan is qualified and the related trust is tax-exempt.

Accounting principles generally accepted in the United States of America require management to evaluate tax positions taken by the Plan and recognize a tax liability if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the Internal Revenue Service. The Company has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2010, there are no uncertain positions taken or expected to be taken that would require recognition of a liability or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The Company believes it is no longer subject to income tax examinations for years prior to 2007.

Legal Settlement

During 2010, the Company finalized its settlement of a class action lawsuit filed in the U.S. District Court for the Central District of Illinois that named as defendants Caterpillar Inc., the Benefit Funds Committee of Caterpillar Inc. and Caterpillar Investment Management Ltd. The complaint alleged that the defendants breached fiduciary duties under ERISA by, among other things, including as plan investment options certain mutual funds affiliated with the Company and allowing certain fees and expenses. The defendants denied and continue to deny all claims asserted in the complaint.

The settlement amount of \$16.5 million was paid by the Company into a qualified settlement fund. The settlement also provided for certain affirmative relief, involving a participant disclosure obligation and oversight for a limited period of time of the affected Company sponsored plans by an independent monitor. Individuals eligible to participate in the settlement include primarily those persons who, at any time between July 1, 1992 and September 10, 2009, had an account in one or more of the affected Company sponsored plans. The net settlement amount, minus applicable fees and expenses, was allocated to eligible class members' accounts if they had an account in one or more of the affected Company sponsored plans as of September 10, 2009 and at the time the settlement payments were made on December 30, 2010. If the accounts were closed or reduced to a balance of zero before September 10, 2009 or before the settlement payments were made, the settlement payment was paid in the form of a check from the settlement administrator. The total net settlement amount allocated to eligible class members of the affected Company sponsored plans on December 30, 2010 was approximately \$9.6 million, of which approximately \$7.6 million was allocated to participant accounts that had balances greater than zero in the affected Company sponsored defined contribution plans and approximately \$2.0 million was paid in the form of a check from the settlement administrator. The amount allocated to Plan participants with balances greater than zero on December 30, 2010 was \$1.2 million.

2. Summary of Significant Accounting Policies

New Accounting Guidance

Reporting loans to participants by defined contribution pension plans – In September 2010, the Financial Accounting Standards Board (the "FASB") issued accounting guidance on participant loans that requires participant loans to be classified as notes receivable from participants, which are segregated from plan investments and measured at their unpaid principal balance plus any accrued but unpaid interest. Previously, participant loans were classified as investments and measured at estimated fair value consisting of principal and any accrued interest. The Plan retrospectively adopted this guidance for the Plan years ended December 31, 2010 and 2009. The adoption of this guidance did not have a material impact on the Plan's financial statements.

Fair value measurements – In April and September 2009, the FASB issued accounting guidance that expands disclosures regarding the inputs and valuation techniques used to measure fair value. The guidance also requires disclosure of debt and equity securities by major category, on a more disaggregated basis than had previously been required. The Plan adopted the guidance for the Plan year ending December 31, 2010. The adoption of this guidance did not have a material impact on the Plan's financial statements.

Basis of Accounting

The Plan's accounts are maintained on the accrual basis of accounting.

Investments

The Plan's interest in the Master Trust is valued as described in Note 4. Investments included in the participant directed brokerage account are valued at quoted market prices, which, for registered investment companies, represent the net asset value of shares held by the Plan at year-end. Interest on investments is recorded as earned. Dividends are recorded on the ex-dividend date. Purchases and sales of securities are recorded on a trade-date basis.

Administrative Expenses

The Plan accrues 6 basis points annually of the fair value of the assets of each investment fund, which is transferred monthly from the Caterpillar Investment Trust into a holding account to pay expenses as they come due. The amount accumulated in the holding account is used to pay certain administrative expenses that have been approved by the Benefit Funds Committee including recordkeeping fees, trustee fees, plan education and audit fees. The Company pays any administrative expenses, excluding applicable expenses paid directly from participant accounts described below, which exceed amounts accrued annually by the Plan.

In addition, certain administrative expenses are paid directly from participant accounts. These administrative expenses include quarterly fees for participants invested in the participant directed brokerage option and processing fees for qualified domestic relations orders.

Withdrawals

Withdrawals are recorded when paid.

Use of Estimates in the Preparation of Financial Statements

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates. The Company believes the techniques and assumptions used in establishing these amounts are appropriate.

Risks and Uncertainties

The Plan provides for various investment options in any combination of stocks, bonds, fixed income securities, mutual funds and other investment securities. Investment securities are exposed to various risks, such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities could occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the Statements of Net Assets Available for Benefits. At December 31, 2010, approximately 45 percent of the Plan's investments were invested in Caterpillar Inc. common stock.

Reclassifications

Certain amounts from the prior year have been reclassified to conform to the current-year financial statement and footnote presentation.

3. Investment Programs

The investment options available to participants consist of four main categories: core investments, model portfolios, Caterpillar stock and a brokerage account.

The core options consist of nine investment choices, each representing a different asset class but collectively offering a broad range of investment alternatives with varying levels of risk and potential returns.

The model portfolios contain a specific mix of the Plan's core investments. Each portfolio's mix of stocks and bonds is automatically rebalanced on the last business day of each calendar quarter. The targeted percentage of stocks and bonds in each of the model portfolios is as follows:

* Conservative	20% stocks and 80% bonds
* Moderately Conservative	40% stocks and 60% bonds
* Moderately Aggressive	60% stocks and 40% bonds
* Aggressive	80% stocks and 20% bonds

The Caterpillar Stock Fund consists of Caterpillar Inc. common stock and a small amount of cash equivalents.

The brokerage account option allows participants to invest in other investments outside of the standard Plan options. Hewitt Financial Services is the custodian for funds invested through this participant directed option. Investments in the participant directed brokerage account consist of registered investment companies. The net investment income for the participant directed brokerage account consists of net appreciation (depreciation) in the fair value of investments in registered investment companies.

4. Master Trust

The Plan's investments are held in the Caterpillar Investment Trust, which was established for the investment of the Plan and other Company sponsored retirement plans. The Northern Trust Company is the Trustee of the Caterpillar Investment Trust and the custodian for funds invested through the core options, model portfolios and the Caterpillar Stock Fund (the funds invested through the core options, model portfolios and the Caterpillar Stock Fund are referred to as the "Master Trust" herein). The Plan and the other Company sponsored retirement plans pool their investments in the Master Trust in exchange for a percentage of participation in the Master Trust.

The percentage of the Plan's participation in the Master Trust was determined based on the December 31, 2010 and 2009 net asset values for the investment fund options chosen by participants of each plan. At December 31, 2010 and 2009, the Plan's interest in the net assets of the Master Trust was 6.41 percent and 6.99 percent, respectively.

The net assets of the Master Trust as of December 31, 2010 and 2009 are as follows:

<i>(in thousands of dollars)</i>	<u>2010</u>	<u>2009</u>
ASSETS		
Investments, at fair value		
Caterpillar Inc. common stock	\$ 3,654,163	\$ 2,374,970
Common stocks	1,363,346	1,095,623
Preferred stocks	1,794	3,200
Preferred corporate bonds and notes	44,952	33,151
Other corporate bonds and notes	70,088	58,770
U.S. government securities	159,681	117,242
Fully benefit-responsive synthetic guaranteed investment contracts	874,724	818,331
Common collective trusts	618,559	396,113
Registered investment companies	1,170	-
Interest bearing cash	35,277	20,626
Other investments, net	26,157	16,920
	<u>6,849,911</u>	<u>4,934,946</u>
Securities on loan, at fair value		
Common stocks	-	68,332
Corporate bonds and notes	-	1,121
U.S. government securities	-	6,127
	<u>-</u>	<u>75,580</u>
Cash collateral held under securities loan agreements, at fair value		
Caterpillar Investment Trust Custom Collateral Fund	-	78,809
	<u>-</u>	<u>78,809</u>
Other assets		
Cash	430	477
Receivables for securities sold	107,065	79,311
Accrued income	4,436	4,277
	<u>111,931</u>	<u>84,065</u>
Total Master Trust assets	<u>6,961,842</u>	<u>5,173,400</u>
LIABILITIES		
Obligation under securities loan agreements	-	(78,137)
Payables for securities purchased	(145,768)	(84,341)
	<u>(145,768)</u>	<u>(162,478)</u>
Total Master Trust liabilities	<u>(145,768)</u>	<u>(162,478)</u>
Adjustment from fair value to contract value for fully benefit-responsive synthetic guaranteed investment contracts	12,330	49,288
	<u>12,330</u>	<u>49,288</u>
Master Trust assets, net	<u>\$ 6,828,404</u>	<u>\$ 5,060,210</u>
Plan's interest in net Master Trust assets with fully benefit-responsive synthetic guaranteed investment contracts at contract value	<u>\$ 437,847</u>	<u>\$ 353,550</u>

Investments are stated at fair value. Investments in common and preferred stock are primarily valued at quoted market prices. Corporate bonds and notes and U.S. government securities are valued based on matrices or models from reputable pricing vendors. Fully benefit-responsive synthetic guaranteed investment contracts and common collective trusts are stated at net asset value, which represents the fair value of the underlying investments. Registered investment companies are valued at quoted market prices that represent the net asset value of shares held by the Master Trust. Interest bearing cash is stated at cost which approximates fair value. Other investments are primarily valued at quoted market prices, when available, or are valued based on matrices or models from reputable pricing vendors. Because of the subjectivity inherent in any estimate, the amounts ultimately realized from the sale of such investments may vary significantly from the appraised value.

The underlying investments of the common collective trusts are corporate bonds and notes, U.S. government securities, stocks and high-grade money market instruments with short maturities. Certain of these investments can only be traded within a monthly window. Additionally, there were no unfunded commitments to purchase investments at December 31, 2010.

Net investment income of the Master Trust for the years ended December 31, 2010 and 2009 is as follows:

<i>(in thousands of dollars)</i>	2010	2009
Interest	\$ 30,819	\$ 31,726
Dividends	92,945	90,661
Net appreciation (depreciation) of the fair value of investments:		
Caterpillar Inc. common stock	1,511,506	569,453
Common stocks	160,522	262,969
Preferred stocks	178	1,849
Preferred corporate bonds and notes	2,551	3,398
Other corporate bonds and notes	4,611	12,027
U.S. government securities	2,085	869
Common collective trusts	33,998	41,902
Registered investment companies	119	(8)
Other investments	1,503	9,704
Net Master Trust investment income	\$ 1,840,837	\$ 1,024,550
Plan's interest in net Master Trust investment income	\$ 105,278	\$ 62,996

Dividend income is recorded as of the ex-dividend date. Interest income is recorded daily as earned. The Master Trust presents in net investment income, the net appreciation (depreciation) in the fair value of its investments which consists of the realized gains (losses) and the unrealized appreciation (depreciation) on those investments.

Investment Contracts

The Master Trust holds fixed income fully benefit-responsive investment contracts, referred to as synthetic guaranteed investment contracts ("synthetic GICs"), in which an investment contract is issued by an insurance company or a financial services institution. The synthetic GICs, designed to help preserve principal and provide a stable crediting rate of interest, are fully benefit-responsive and provide that plan participant initiated withdrawals will be paid at contract value. The synthetic GICs are backed by a portfolio of fixed income investments, consisting of a common collective trust bond fund, which are effectively owned by the Plan. The assets underlying the synthetic GICs are maintained by a third party custodian, separate from the contract issuer's general assets. The synthetic GICs are obligated to provide an interest rate not less than zero. These contracts provide that realized and unrealized gains and losses of the underlying assets are not reflected immediately in the assets of the fund, but rather are amortized, usually over the duration of the underlying assets, through adjustments to the future interest crediting rate. The future interest crediting rate can be adjusted periodically and is primarily based on the current yield-to-maturity of the covered investment, plus or minus amortization of the difference between the market value and contract value of the covered investment over the duration of the covered investment at the time of computation. The issuers guarantee that all qualified participant withdrawals will occur at contract value. There are no reserves against contract value for credit risks of the contract issuers or otherwise.

Employer initiated events, if material, may affect the underlying economics of the investment contracts. These events include plant closings, layoffs, plan termination, bankruptcy or reorganization, merger, early retirement incentive programs, tax disqualification of a trust or other events. The occurrence of one or more employer initiated events could limit the Plan's ability to transact at contract value with the issuers. Except for the employer initiated events above, the synthetic GICs do not permit the issuers to terminate the agreement prior to the scheduled maturity date at an amount different from contract value. As of December 31, 2010, the Company believes the occurrence of an event that would limit the ability of the Plan to transact at contract value with the issuers is remote.

A summary of the average yields for the synthetic GICs are as follows:

<u>Average Yields</u>	<u>December 31, 2010</u>	<u>December 31, 2009</u>
Based on actual income	3.36%	3.88%
Based on interest rate credited to participants	2.27%	2.16%

The guidance on reporting of fully benefit-responsive investment contracts held by defined contribution plans requires the Statements of Net Assets Available for Benefits to present the fair value of the synthetic GICs, as well as an adjustment of the fully benefit-responsive synthetic GICs from fair value to contract value.

Derivatives

Within the Master Trust, a number of investment managers use derivative financial instruments to meet fund objectives and manage exposure to foreign currency, interest rate and market fluctuations. The fair value of these derivative contracts and related appreciation (depreciation) are included in Other investments in the Net assets and Investment income of the Master Trust. All derivative financial instruments are undesignated.

Credit Contracts

Investment managers use credit default swaps to reduce, increase or manage exposure to credit risk. A credit default swap is a contract in which, for a fee, a protection seller agrees to pay a protection buyer an amount resulting from a credit event on a reference entity. If there is no credit default event or settlement trigger, as defined by the specific derivative contract, then the protection seller makes no payments to the protection buyer and receives only the contractually specified fee. However, if a credit event occurs as defined in the specific derivative contract sold, the protection seller will be required to make a payment to the protection buyer. The Master Trust holds credit default swaps both as a protection seller and protection buyer.

The following table summarizes the credit default swaps held by the Master Trust as a protection seller. The maximum potential amount of future payments under credit derivative contracts presented below is the notional value of the derivatives.

(in thousands of dollars)

Protection Seller Contract Type	December 31, 2010		December 31, 2009	
	Credit Default Swaps		Credit Default Swaps	
	Notional Value	Fair Value	Notional Value	Fair Value
Single issuer	\$ 1,520	\$ 11	\$ 1,620	\$ (113)
Index of North American issuers				
Investment grade	–	–	2,827	(72)
Investment grade high volatility	–	–	8,406	(204)
High yield	900	46	2,800	(104)
Index of mortgage securities	493	25	3,086	(914)
Total protection seller credit default swaps	<u>\$ 2,913</u>	<u>\$ 82</u>	<u>\$ 18,739</u>	<u>\$ (1,407)</u>

The Master Trust holds credit default swaps as a protection buyer that have identical reference entities as swaps held as protection seller. The notional value of the credit default swaps held as protection buyer, which would reduce the potential amount of future payments as protection seller, was \$0.3 million as of December 31, 2010 and 2009. The Master Trust also held \$4.0 million and \$3.8 million notional value of credit default swaps as a protection buyer which did not offset swaps held as protection seller as of December 31, 2010 and 2009, respectively.

Equity Contracts

Equity index futures contracts are used by investment managers to invest excess cash into equity benchmarks, including the S&P 500, S&P 400 and Russell 2000. The notional value of long equity futures held was \$52.1 million and \$38.7 million at December 31, 2010 and 2009, respectively. Investment managers also invest in a small amount of equity rights and warrants.

Foreign Exchange Contracts

Foreign currency exchange rate movements create a degree of risk by affecting the U.S. dollar value of instruments denominated in foreign currencies. Forward contracts are used by investment managers to manage foreign exchange rate risks associated with certain investments.

Interest Rate Contracts

Interest rate movements create a degree of risk by affecting the amount of interest payments and the value of debt instruments. Investment managers use interest rate swaps, total return swaps, futures contracts, options and swaptions to manage interest rate risk.

The following table summarizes the type and notional value of interest rate contracts held by the Master Trust:

(in thousands of dollars)

Interest Rate Contracts	December 31, 2010	December 31, 2009
	Notional Value	Notional Value
Swaps		
Interest rate	\$ 7,595	\$ 8,180
Total return	1,502	–
Futures		
Long	13,448	23,761
Short	(12,954)	(9,118)
Swaptions	–	6,500
Total notional value of interest rate contracts	<u>\$ 9,591</u>	<u>\$ 29,323</u>

The following table summarizes the location and fair value of derivative instruments reported in the Net assets of the Master Trust:

<i>(in thousands of dollars)</i>		<u>December 31, 2010</u>		<u>December 31, 2009</u>	
<u>Undesignated</u>	<u>Master Trust</u>	<u>Fair Value</u>		<u>Fair Value</u>	
<u>Contracts</u>	<u>Classification</u>	<u>Asset</u>	<u>Liability</u>	<u>Asset</u>	<u>Liability</u>
Credit contracts	Other investments	\$ 282	\$ (48)	\$ 193	\$ (1,507)
Equity contracts	Other investments	1	-	2	-
	Receivables for securities				
Foreign exchange	contracts sold, Payables for				
contracts	securities purchased *	816	(590)	428	(568)
Interest rate contracts	Other investments	30	(292)	162	(239)
Total fair value of derivative instruments		<u>\$ 1,129</u>	<u>\$ (930)</u>	<u>\$ 785</u>	<u>\$ (2,314)</u>

*Forward contracts are presented gross (buy side of the contract as a receivable, sell side of the contract as a payable) in the net assets of the Master Trust. The above table shows the net position of each forward contract as an asset or liability.

The effect of derivatives on the Net investment income of the Master Trust is as follows:

<i>(in thousands of dollars)</i>		<u>Year ended</u>	<u>Year ended</u>
<u>Undesignated</u>	<u>Master Trust</u>	<u>December 31, 2010</u>	<u>December 31, 2009</u>
<u>Contracts</u>	<u>Classification</u>	<u>Income (loss)</u>	<u>Income (loss)</u>
		<u>on Derivatives</u>	<u>on Derivatives</u>
Credit contracts	Other investments	\$ 518	\$ 2,309
Equity contracts	Other investments	4,774	9,363
Foreign exchange			
contracts	Other investments	657	94
Interest rate contracts	Other investments	(845)	1,201
Total income (loss) of derivative instruments		<u>\$ 5,104</u>	<u>\$ 12,967</u>

The Master Trust continually monitors its positions with, and the credit quality of, the major financial institutions which are counterparties to its financial instruments, and does not anticipate nonperformance by these counterparties. To mitigate the credit risk of certain derivative financial instruments, investment managers use International Swaps and Derivatives Association (ISDA) agreements with the counterparties. These agreements include provisions that permit netting exposures within similar derivative types and posting collateral if required.

Fair Value Measurements

The guidance on fair value measurements defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. This guidance also specifies a fair value hierarchy based upon the observability of inputs used in valuation techniques. Observable inputs (highest level) reflect market data obtained from independent sources, while unobservable inputs (lowest level) reflect internally-developed market assumptions. In accordance with this guidance, fair value measurements are classified under the following hierarchy:

- Level 1 – Quoted prices for identical instruments in active markets.
- Level 2 – Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs or significant value-drivers are observable in active markets.
- Level 3 – Model-derived valuations in which one or more significant inputs or significant value-drivers are unobservable.

When available, quoted market prices are used to determine fair value and such measurements are classified within Level 1. In some cases where market prices are not available, observable market based inputs are used to calculate fair value, in which case the measurements are classified within Level 2. If quoted or observable market prices are not available, fair value is based upon internally developed models that use, where possible, current market-based parameters such as interest rates, yield curves and currency rates. These measurements are classified within Level 3.

Fair value measurements are classified according to the lowest level input or value-driver that is significant to the valuation. A measurement may therefore be classified within Level 3 even though there may be significant inputs that are readily observable.

Master Trust assets and liabilities that are measured at fair value as of December 31, 2010 and 2009 are summarized below:

<i>(in thousands of dollars)</i>	Fair Value Measurements as of December 31, 2010			
	Level 1	Level 2	Level 3	Total
Stocks:				
U.S.	\$ 4,633,650	\$ –	\$ –	\$ 4,633,650
Non-U.S.	385,653	–	–	385,653
Corporate bonds and notes:				
U.S.	–	103,324	–	103,324
Non-U.S.	–	11,716	–	11,716
U.S. government securities:				
Agency mortgage-backed securities	–	111,190	–	111,190
Bonds	–	48,491	–	48,491
Fully benefit-responsive synthetic guaranteed investment contracts	–	874,724	–	874,724
Common collective trusts:				
Cash and cash equivalents	–	318,795	–	318,795
Stocks	–	157,252	–	157,252
Corporate bonds	–	142,512	–	142,512
Registered investment companies	1,170	–	–	1,170
Interest bearing cash	35,277	–	–	35,277
Other investments, net	16,319	9,838	–	26,157
Total assets and liabilities	<u>\$ 5,072,069</u>	<u>\$ 1,777,842</u>	<u>\$ –</u>	<u>\$ 6,849,911</u>

<i>(in thousands of dollars)</i>	Fair Value Measurements as of December 31, 2009			
	Level 1	Level 2	Level 3	Total
Stocks:				
U.S.	\$ 3,167,393	\$ –	\$ –	\$ 3,167,393
Non-U.S.	373,641	1,091	–	374,732
Corporate bonds and notes:				
U.S.	–	86,393	–	86,393
Non-U.S.	–	6,649	–	6,649
U.S. government securities:				
Agency mortgage-backed securities	–	77,041	–	77,041
Bonds	–	46,328	–	46,328
Fully benefit-responsive synthetic guaranteed investment contracts	–	818,331	–	818,331
Common collective trusts:				
Cash and cash equivalents	–	169,144	–	169,144
Stocks	–	117,381	–	117,381
Corporate bonds	–	109,588	–	109,588
Caterpillar Investment Trust Custom Collateral Fund	–	78,809	–	78,809
Interest bearing cash	20,626	–	–	20,626
Other investments, net	14,002	2,918	–	16,920
Total assets and liabilities	<u>\$ 3,575,662</u>	<u>\$ 1,513,673</u>	<u>\$ –</u>	<u>\$ 5,089,335</u>

Plan assets not included in the Master Trust that are measured at fair value as of December 31, 2010 and 2009 are summarized below:

<i>(in thousands of dollars)</i>	Fair Value Measurements as of December 31, 2010			
	Level 1	Level 2	Level 3	Total
Participant directed brokerage account	\$ 4,474	\$ 685	\$ -	\$ 5,159

<i>(in thousands of dollars)</i>	Fair Value Measurements as of December 31, 2009			
	Level 1	Level 2	Level 3	Total
Participant directed brokerage account	\$ 4,431	\$ 605	\$ -	\$ 5,036

Securities Lending

The Master Trust participated in a securities lending program offered by the Trustee until November 2010. As a participating lender, the Master Trust received cash, U.S. government securities or letters of credit as collateral for loans of securities to approved borrowers. The Trustee pooled the cash and non-cash collateral in the Caterpillar Investment Trust Custom Collateral Fund, which invested primarily in short term investment vehicles. Initial collateral levels were not less than 102 percent of the fair value of the borrowed securities, or not less than 105 percent if the borrowed securities and the collateral were denominated in different currencies. The fair value of securities on loan was approximately \$76 million at December 31, 2009. The collateral received in 2009 for these loaned securities was approximately \$78 million, of which approximately \$78 million represented cash or other highly liquid investments. Net realized investment income from securities lending was approximately \$1.0 million and \$6.7 million in 2010 and 2009, respectively, and is included in the Net Master Trust investment income.

5. Parties-in-Interest

The Trustee is authorized, under contract provisions and by exemption under 29 CFR 408(b) of ERISA regulations, to invest in securities under its control and in securities of the Company.

The investment options available to the participants as summarized in Note 3 include the Caterpillar Stock Fund. The Master Trust also invests in the U.S. Equity Broad Index Fund, which is sponsored and managed by The Northern Trust Company, the Trustee for the Master Trust. The Northern Trust Company also manages the cash equitization portion of each of the investment options for liquidity purposes. These transactions, as well as participant loans, qualify as exempt party-in-interest transactions.

6. Reconciliation of Financial Statements to Form 5500

The following table reconciles the net assets available for benefits per the audited financial statements to the Form 5500 Annual Report:

<i>(in thousands of dollars)</i>	2010	2009
Net assets available for benefits per financial statements	\$ 449,358	\$ 365,175
Certain deemed distributions of participant loans	(1,348)	(1,164)
Net assets per Form 5500	\$ 448,010	\$ 364,011

7. Subsequent Event

On February 28, 2011, the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America ("UAW") and the Company reached a new six-year labor agreement that will expire on March 1, 2017. On January 1, 2016, or as soon as administratively practicable, account balances in the Plan for participants covered by the new labor agreement will be transferred to the Company's Tax Deferred Retirement Plan ("TDRP"). At the same time, active UAW employees that were eligible for the Non-Contributory Pension Plan ("NCP") and the Plan shall become eligible for various provisions of TDRP including employee salary deferrals, employer matching contributions and an annual employer non-elective contribution. In addition, the Company has agreed to make a one-time contribution of \$8 million to TDRP in 2016. The contribution will be allocated equally between former Plan participants covered by the new labor agreement that are actively employed and are not eligible to retire under the terms of NCP on January 1, 2016. Plan participants covered by other labor agreements were not impacted by the new UAW agreement.

Supplemental Schedule

Caterpillar Inc.
Tax Deferred Savings Plan
EIN 37-0602744
Schedule H, Line 4i - Schedule of Assets (Held at End of Year)
December 31, 2010

(a)	(b)	(c)	(d)	(e)
	Identity of issuer, borrower, lessor or similar party	Description of investment, including maturity date, rate of interest, collateral, par or maturity value	Cost	Current value
*	Caterpillar Inc.	Master Trust – at fair value	**	\$ 436,492,101
*	Caterpillar Inc.	Master Trust – adjustment from fair value to contract value for fully benefit-responsive synthetic guaranteed investment contracts	**	1,354,475
	Hewitt Financial Services	Participant directed brokerage account	**	5,158,990
*	Participant notes receivable	Participant loans (various maturity dates through March 8, 2019, various interest rates ranging from 4.25% to 11.00%)	–	<u>6,352,140</u>
		Total Investments		<u>\$ 449,357,706</u>

* Denotes party in interest.

** Cost information is not applicable for participant directed investments.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned, hereunto duly authorized.

CATERPILLAR INC. TAX DEFERRED SAVINGS PLAN

June 24, 2011

By: */s/ Jonathan D. Ginzel*

Name: Jonathan D. Ginzel

Title: Plan Administrator

Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 33-8003, 333-133266, as amended, and 333-170405) of Caterpillar Inc. of our report dated June 24, 2011 relating to the financial statements of the Caterpillar Inc. Tax Deferred Savings Plan, which appears in this Form 11-K.

/s/ PricewaterhouseCoopers LLP

Peoria, Illinois
June 24, 2011