Amundi Pioneer
ASSET MANAGEMENT

Pioneer Variable Contracts Trust

Pioneer Real Estate Shares VCT Portfolio — Class I and II Shares

Beginning in February 2021, as permitted by regulations adopted by the Securities and Exchange Commission, you may not be receiving paper copies of the Portfolio's shareholder reports like this one by mail, unless you specifically request paper copies of the reports from the insurance company that offers your variable annuity or variable life insurance contract or from your financial intermediary. Instead, the insurance company may choose to make the reports available on a website, and will notify you by mail each time a shareholder report is posted and provide you with a website link to access the report. Instructions for requesting paper copies will be provided by your insurance company.

If you already elected to receive shareholder reports electronically, you will not be affected by this change and you need not take any action. You may elect to receive shareholder reports and other communications from the insurance company or your financial intermediary electronically by following the instructions provided by the insurance company or by contacting your financial intermediary.

You may elect to receive all future Fund shareholder reports in paper free of charge from the insurance company. You can inform the insurance company or your financial intermediary that you wish to continue receiving paper copies of your shareholder reports by following the instructions provided by the insurance company or by contacting your financial intermediary. Your election to receive reports in paper will apply to all funds available under your contract with the insurance company.

SEMIANNUAL REPORT

June 30, 2019

Please refer to your contract prospectus to determine the applicable share class offered under your contract.

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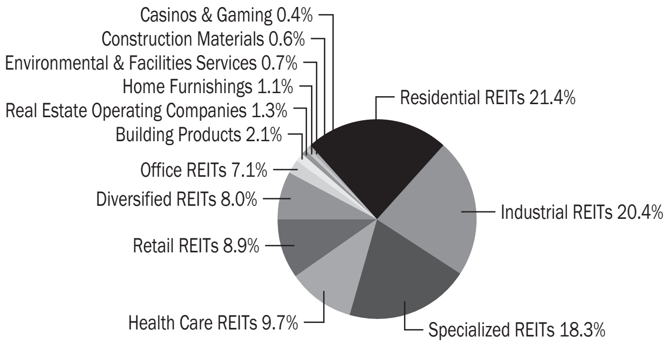
This report is authorized for distribution only when preceded or accompanied by a prospectus for the Portfolio being offered.

Pioneer Variable Contracts Trust files a complete schedule of portfolio holdings with the Securities and Exchange Commission for the first and third quarters of each fiscal year as an exhibit to its reports on Form N-PORT. Shareholders may view the filed Form N-PORT by visiting the Commission's web site at https://www.sec.gov.

PORTFOLIO UPDATE 6/30/19

Sector Distribution

(As a percentage of total investments)*



5 Largest Holdings

(As a percentage of total investments)*

1.	Prologis, Inc.	7.06%
2.	Equinix, Inc.	6.95
3.	Extra Space Storage, Inc.	4.61
4.	Sun Communities, Inc.	4.07
5.	Equity LifeStyle Properties, Inc.	3.61

* Excludes temporary cash investments and all derivative contracts except for options purchased. The Portfolio is actively managed, and current holdings may be different. The holdings listed should not be considered recommendations to buy or sell any securities.

PERFORMANCE UPDATE 6/30/19

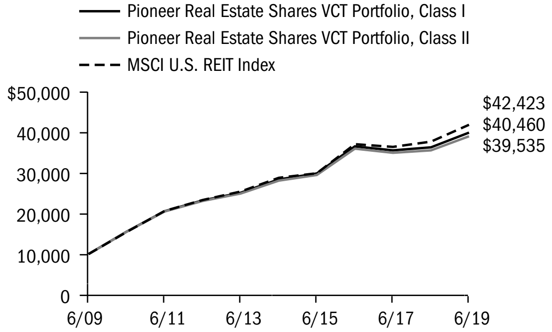
Prices and Distributions

Net Asset Value per Share	6/30/19	12/31/18
Class I	$10.63	$12.55
Class II	$10.67	$12.58

Distributions per Share: (1/1/19 – 6/30/19)	Net Investment Income	Short-Term Capital Gains	Long-Term Capital Gains
Class I	$0.1500	$ –	$4.2285
Class II	$0.1300	$ –	$4.2285

Performance of a $10,000 Investment

The following chart shows the change in value of an investment made in Class I and Class II shares of **Pioneer Real Estate Shares VCT Portfolio** at net asset value during the periods shown, compared to that of the Morgan Stanley Capital International (MSCI) U.S. REIT Index. Portfolio returns are based on net asset value and do not reflect applicable insurance fees and surrender charges.



The MSCI U.S. REIT Index is an unmanaged, widely used index comprising a broad representation of the most actively traded real estate trusts, and is designed to be a measure of real estate equity performance. Index returns are calculated monthly, assume reinvestment of dividends and, unlike Portfolio returns, do not reflect any fees, expenses or sales charges. It is not possible to invest directly in an index.

Average Annual Total Returns

(As of June 30, 2019)

	Class I	Class II	MSCI U.S. REIT Index
10 Years	15.00%	14.74%	15.55%
5 Years	7.09%	6.83%	7.81%
1 Year	10.04%	9.79%	11.06%

All total returns shown assume reinvestment of distributions at net asset value.

The performance table does not reflect the deduction of taxes that a shareowner would pay on distributions or the redemption of shares.

Effective January 1, 2018, AmundiPioneer became directly responsible for portfolio management of the Portfolio. The performance shown for periods prior to January 1, 2018 reflects the investment strategies employed during those periods.

Call 800-688-9915 or visit www.amundipioneer.com/us for the most recent month-end performance results. Current performance may be lower or higher than the performance data quoted.

The performance data quoted represents past performance, which is no guarantee of future results. Investment return and principal value will fluctuate, and shares, when redeemed, may be worth more or less than their original cost.

The returns for the Portfolio do not reflect the deduction of expenses associated with variable products, such as mortality and expense risk charges, separate account charges, and sales charges. These expenses would reduce the overall returns shown.

Performance results reflect any applicable expense waivers in effect during the periods shown. Without such waivers performance would be lower. Waivers may not be in effect for all portfolios. Certain fee waivers are contractual through a specified period. Otherwise, fee waivers can be rescinded at any time. See the prospectus and financial statements for more information.

COMPARING ONGOING PORTFOLIO EXPENSES

As a shareowner in the Portfolio, you incur two types of costs:

(1) ongoing costs, including management fees, distribution and/or service (12b-1) fees, and other Portfolio expenses; and

(2) transaction costs, including sales charges (loads) on purchase payments.

This example is intended to help you understand your ongoing expenses (in dollars) of investing in the Portfolio and to compare these costs with the ongoing costs of investing in other mutual funds offered through your variable annuity contract. The example is based on an investment of $1,000 at the beginning of the Portfolio's latest six-month period and held throughout the six months.

Using the Tables

Actual Expenses

The first table below provides information about actual account values and actual expenses. You may use the information in this table, together with the amount you invested, to estimate the expenses that you paid over the period as follows:

1. Divide your account value by $1,000
   Example: an $8,600 account value ÷ $1,000 = 8.6
2. Multiply the result in (1) above by the corresponding share class's number in the third row under the heading entitled "Expenses Paid During Period" to estimate the expenses you paid on your account during this period.

Expenses Paid on a $1,000 Investment in Pioneer Real Estate Shares VCT Portfolio

Based on actual returns from January 1, 2019 through June 30, 2019.

Share Class	I	II
Beginning Account Value on 1/1/19	$1,000.00	$1,000.00
Ending Account Value on 6/30/19	$1,186.10	$1,184.90
Expenses Paid During Period*	$ 7.48	$ 8.83

* Expenses are equal to the Portfolio's annualized net expense ratio of 1.38% and 1.63% for Class I and Class II shares, respectively, multiplied by the average account value over the period, multiplied by 181/365 (to reflect the one-half year period).

Hypothetical Example for Comparison Purposes

The table below provides information about hypothetical account values and hypothetical expenses based on the Portfolio's actual expense ratio and an assumed rate of return of 5% per year before expenses, which is not the Portfolio's actual return. The hypothetical account values and expenses may not be used to estimate the actual ending account balance or expenses you paid for the period.

You may use this information to compare the ongoing costs of investing in the Portfolio and other variable annuities. To do so, compare this 5% hypothetical example with the 5% hypothetical examples that appear in the shareholder reports of the other variable annuities.

Please note that the expenses shown in the tables are meant to highlight your ongoing costs only and do not reflect any transaction costs, such as sales charges (loads) that are charged at the time of the transaction. Therefore, the table below is useful in comparing ongoing costs only and will not help you determine the relative total costs of owning different variable annuities. In addition, if these transaction costs were included, your costs would have been higher.

Expenses Paid on a $1,000 Investment in Pioneer Real Estate Shares VCT Portfolio

Based on a hypothetical 5% per year return before expenses, reflecting the period from January 1, 2019 through June 30, 2019.

Share Class	I	II
Beginning Account Value on 1/1/19	$1,000.00	$1,000.00
Ending Account Value on 6/30/19	$1,017.95	$1,016.71
Expenses Paid During Period*	$ 6.90	$ 8.15

* Expenses are equal to the Portfolio's annualized net expense ratio of 1.38% and 1.63% for Class I and Class II shares, respectively, multiplied by the average account value over the period, multiplied by 181/365 (to reflect the one-half year period).

PORTFOLIO MANAGEMENT DISCUSSION 6/30/19

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In the following interview, Raymond Haddad discusses the market environment for real estate investment trusts (REITs) and other real estate-related investments, and the factors that influenced the performance of the Pioneer Real Estate Shares VCT Portfolio during the six-month period ended June 30, 2019. Mr. Haddad, a vice president and portfolio manager at Amundi Pioneer Asset Management, Inc. (Amundi Pioneer), is responsible for the day-to-day management of the Portfolio.

Q: How did the Portfolio perform during the six-month period ended June 30, 2019?

A: Pioneer Real Estate Shares VCT Portfolio's Class I shares returned 18.61% at net asset value during the six-month period ended June 30, 2019, and Class II shares returned 18.49%, while the Portfolio's benchmark, the Morgan Stanley Capital International (MSCI) U.S. REIT Index (the MSCI Index)[1], returned 17.77%.

Q: How would you describe the market environment for REIT investors during the six-month period ended June 30, 2019?

A: The six-month reporting period was a very rewarding time to be invested in equities, as investors applauded the prospects of easier monetary policy from the Federal Reserve (the Fed) and optimism about at least some resolution to the U.S.-China trade dispute. However, while the Fed's more dovish tone on interest rates contributed to rising equity prices, the rally was not without heightened market volatility. In May, investor optimism briefly faded when U.S.-China trade talks hit an impasse and both countries imposed a new round of tariffs. At the end of June, however, the two countries agreed to suspend new tariffs and resume trade negotiations. That development, combined with rising investor expectations for interest-rate cuts by the Fed as early as the summer of 2019, contributed to a hospitable environment for REITs, which finished the six-month period with a strong 17.77% return.

Q: Which strategies or investments aided the Portfolio's benchmark-relative performance during the six-month period ended June 30, 2019?

A: The Portfolio's strong absolute and benchmark-relative performance results during the reporting period derived from positive sector allocation and stock selection strategies. With the U.S. economy in its late-cycle phase, we continued to focus on investments in the higher-quality, growth-oriented subsectors of the REIT market, where we believe long-term secular drivers of growth have justified the relatively higher stock valuations in those areas. The secular themes included e-Commerce (warehouses) and apartment REITs, sectors that benefited from favorable supply/demand dynamics during the six-month period and contributed positively to the Portfolio's benchmark-relative results.

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Within the apartment subsector, however, we changed the Portfolio's emphasis from German housing to U.S.-manufactured housing rentals. As part of the strategy, we reduced the Portfolio's overweight exposures to the Deutsche Wohnen and Vonovia REITs toward the end of the period, given efforts by politicians in Germany to draft legislation that would limit rent increases. Prior to that development, the two companies had been benefiting from a loosening of rent-control policies aimed at stimulating increased housing construction in a German housing market starved for new supply. The proposed law had not yet been passed by the close of the six-month period; however, given the uncertainty, we still decided to reduce the size of the Portfolio's positions in the two stocks.

We reinvested the proceeds in the manufactured housing rental market, where we found better value compared to the more widely followed apartment REIT sector. The manufactured housing rental market leases land to renters who then buy relatively inexpensive prefabricated homes to build on the land. Positions in Sun Communities and Equity Lifestyle, which performed very well for the period and benefited the Portfolio's benchmark-relative performance, exemplify our strategy in the subsector.

Another strategy that contributed positively to the Portfolio's benchmark-relative results during the period was our decision to avoid exposure to lodging REITs. The lodging sector underperformed the market for the period due to oversupply, which led to weak pricing and more tepid growth prospects in the hotel sector.

Q: Which strategies or investments detracted from the Portfolio's benchmark-relative performance during the six-month period ended June 30, 2019?

A: From a sector allocation perspective, data centers performed well during the reporting period. However, our decision to reduce the Portfolio's weighting in the sector worked against us and detracted from benchmark-relative returns. We were concerned that the leasing activities of hyper-scale tech companies would hurt the data-center REIT group in 2019, after the sector's very strong performance in 2018. Accordingly, we sold the Portfolio's position in Digital Realty, while maintaining an overweight position in Equinix.

With regard to individual detractors, the Portfolio's underweight position in Welltower, a REIT that invests in senior housing, assisted living, and memory-care communities, was a drag on benchmark-relative returns. The stock actually performed very well during the period, but as part of our broader strategy within the health care subsector, we have been underweighting the Portfolio to senior housing communities such as Welltower because of oversupply issues relative to demand. While we believe aging demographics make senior housing communities an attractive secular theme over the longer term, we are waiting for the supply overhang to dissipate, and for demand/supply dynamics to come into balance.

Additionally, the Portfolio's lack of exposure to Ventas, a REIT specializing in health care facilities, also weighed on benchmark-relative returns, as Ventas outperformed the broader U.S. real estate market during the six-month period.

PORTFOLIO MANAGEMENT DISCUSSION 6/30/19 *(continued)*

A Word About Risk:

All investments are subject to risk, including the possible loss of principal. In the past several years, financial markets have experienced increased volatility, depressed valuations, decreased liquidity and heightened uncertainty. These conditions may continue, recur, worsen or spread.

The Portfolio invests in REIT securities, the value of which can fall for a variety of reasons, such as declines in rental income, fluctuating interest rates, poor property management, environmental liabilities, uninsured damage, increased competition, or changes in real estate tax laws.

The Portfolio invests in a limited number of securities and, as a result, the Portfolio's performance may be more volatile than the performance of other portfolios holding more securities.

Investing in foreign and/or emerging markets securities involves risks relating to interest rates, currency exchange rates, economic, and political conditions.

When interest rates rise, the prices of fixed-income securities in the Portfolio will generally fall. Conversely, when interest rates fall, the prices of fixed-income securities in the Portfolio will generally rise.

At times, the Portfolio's investments may represent industries or industry sectors that are interrelated or have common risks, making it more susceptible to any economic, political, or regulatory developments or other risks affecting those industries and sectors.

These risks may increase share price volatility.

Q: Did you invest the Portfolio in any derivative securities during the six-month period ended June 30, 2019?

A: No, the Portfolio held no derivative investments during the period.

Q: What is your outlook for REITs for the balance of 2019?

A: At the close of the six-month period ended June 30th, the current economic expansion – which began in the wake of the 2008/2009 financial crisis and the ensuing recession – became the longest in U.S. history. That said, we continue to have a constructive view on stocks and real estate-related investments, especially given other investment alternatives such as fixed-income securities. We also believe the current business cycle has room to run, given the Fed's pivot away from interest-rate hikes and toward monetary easing. In addition, inflation has remained tame, business and consumer confidence have remained stable, and companies seem committed to investing in capital projects.

Please refer to the Schedule of Investments on pages 7 – 8 for a full listing of Portfolio securities.

Past performance is no guarantee of future results.

Any information in this shareholder report regarding market or economic trends or the factors influencing the Portfolio's historical or future performance are statements of opinion as of the date of this report.

SCHEDULE OF INVESTMENTS 6/30/19 (UNAUDITED)

Shares		Value
	UNAFFILIATED ISSUERS – 98.9%	
	COMMON STOCKS – 98.9% of Net Assets	
	Building Products – 2.1%	
4,200	AAON, Inc.	$ 210,756
5,805	Advanced Drainage Systems, Inc.	190,346
1,550	Allegion PLC	171,353
	Total Building Products	$ 572,455
	Commercial Services & Supplies – 0.7%	
2,042	Waste Connections, Inc.	$ 195,174
	Total Commercial Services & Supplies	$ 195,174
	Construction Materials – 0.5%	
1,121	Vulcan Materials Co.	$ 153,925
	Total Construction Materials	$ 153,925
	Equity Real Estate Investment Trusts (REITs) – 92.7%	
7,921	Agree Realty Corp.	$ 507,340
3,862	Alexandria Real Estate Equities, Inc.	544,890
4,668	American Assets Trust, Inc.	219,956
7,796	American Homes 4 Rent	189,521
2,082	American Tower Corp.	425,665
22,961	Americold Realty Trust	744,396
4,105	AvalonBay Communities, Inc.	834,054
6,888	Camden Property Trust	719,038
16,931	CareTrust Real Estate Investment Trust, Inc.	402,619
11,090	Community Healthcare Trust, Inc.	437,057
6,955	CoreCivic, Inc.	144,386
3,863	CorEnergy Infrastructure Trust, Inc.	153,206
10,537	Cousins Properties, Inc.	381,123
21,271	CubeSmart	711,302
15,295	Douglas Emmett, Inc.	609,353
5,377	EastGroup Properties, Inc.	623,624
3,717	Equinix, Inc.	1,874,446
8,026	Equity LifeStyle Properties, Inc.	973,875
9,999	Essential Properties Realty Trust, Inc.	200,380
11,726	Extra Space Storage, Inc.	1,244,129
3,028	Granite Real Estate Investment Trust	139,538
17,123	Hannon Armstrong Sustainable Infrastructure Capital, Inc.	482,526
27,267	HCP, Inc.	871,999
3,146	Innovative Industrial Properties, Inc.	388,720
16,127	Invitation Homes, Inc.	431,075
5,025	Liberty Property Trust	251,451
8,238	Mack-Cali Realty Corp.	191,863
11,790	Medical Properties Trust, Inc.	205,617
3,629	Mid-America Apartment Communities, Inc.	427,351
14,577	NexPoint Residential Trust, Inc.	603,488

Shares		Value
	Equity Real Estate Investment Trusts (REITs) (continued)	
10,955	NorthStar Realty Europe Corp.	$ 179,991
8,700	Outfront Media, Inc.	224,373
23,781	Prologis, Inc.	1,904,858
2,535	PS Business Parks, Inc.	427,223
13,672	Realty Income Corp.	942,958
5,339	Retail Value, Inc.	185,797
15,031	Rexford Industrial Realty, Inc.	606,802
3,735	Simon Property Group, Inc.	596,704
3,732	Spirit Realty Capital, Inc.	159,207
13,888	STORE Capital Corp.	460,943
8,570	Sun Communities, Inc.	1,098,588
12,330	Terreno Realty Corp.	604,663
10,526	UDR, Inc.	472,512
2,803	Universal Health Realty Income Trust	238,059
7,484	VICI Properties, Inc.	164,947
5,736	Welltower, Inc.	467,656
7,516	WP Carey, Inc.	610,149
	Total Equity Real Estate Investment Trusts (REITs)	$25,279,418
	Hotels, Restaurants & Leisure – 0.4%	
2,550(a)	Eldorado Resorts, Inc.	$ 117,478
	Total Hotels, Restaurants & Leisure	$ 117,478
	Household Durables – 1.1%	
2,011(a)	Mohawk Industries, Inc.	$ 296,562
	Total Household Durables	$ 296,562
	Real Estate Management & Development – 1.4%	
7,128	TLG Immobilien AG	$ 208,802
3,243	Vonovia SE	154,948
	Total Real Estate Management & Development	$ 363,750
	TOTAL COMMON STOCKS (Cost $20,669,337)	$26,978,762
	TOTAL INVESTMENTS IN UNAFFILIATED ISSUERS – 98.9% (Cost $20,669,337)	$26,978,762
	OTHER ASSETS AND LIABILITIES – 1.1%	$ 310,283
	NET ASSETS – 100.0%	**$27,289,045**

REIT Real Estate Investment Trust.

(a) Non-income producing security.

Purchases and sales of securities (excluding temporary cash investments) for the six months ended June 30, 2019, aggregated $14,912,751 and $16,687,676, respectively.

The Portfolio is permitted to engage in purchase and sale transactions ("cross trades") with certain funds and accounts for which Amundi Pioneer Asset Management, Inc., (the "Adviser") serves as the Portfolio's investment adviser, as set forth in Rule 17a-7 under the Investment Company Act of 1940, pursuant to procedures adopted by the Board of Trustees. Under these procedures, cross trades are effected at current market prices. During the six months ended June 30, 2019, the Portfolio did not engage in cross trade activity.

At June 30, 2019, the net unrealized appreciation on investments based on cost for federal tax purposes of $20,783,400 was as follows:

Aggregate gross unrealized appreciation for all investments in which there is an excess of value over tax cost	$6,389,621
Aggregate gross unrealized depreciation for all investments in which there is an excess of tax cost over value	(194,259)
Net unrealized appreciation	$6,195,362

Various inputs are used in determining the value of the Portfolio's investments. These inputs are summarized in the three broad levels below.

Level 1 – quoted prices in active markets for identical securities.

Level 2 – other significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risks, etc.). See Notes to Financial Statements — Note 1A.

Level 3 – significant unobservable inputs (including the Portfolio's own assumptions in determining fair value of investments). See Notes to Financial Statements — Note 1A.

The following is a summary of the inputs used as of June 30, 2019, in valuing the Portfolio's investments:

	Level 1	Level 2	Level 3	Total
Common Stocks	$26,978,762	$ —	$ —	$26,978,762
Total Investments in Securities	**$26,978,762**	**$ —**	**$ —**	**$26,978,762**

During the six months ended June 30, 2019, there were no transfers between Levels 1, 2 and 3.

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

STATEMENT OF ASSETS AND LIABILITIES 6/30/19 (UNAUDITED)

ASSETS:	
Investments in unaffiliated issuers, at value (cost $20,669,337)	$26,978,762
Cash	278,703
Receivables —	
Portfolio shares sold	1,622
Dividends	94,303
Other assets	43
Total assets	$27,353,433
LIABILITIES:	
Payables —	
Portfolio shares repurchased	$ 5,342
Distributions	103
Trustees' fees	154
Professional fees	18,982
Administrative fees	15,167
Shareowner communications expense	3,675
Printing expenses	13,534
Custodian fees	3,314
Due to affiliates —	
Management fees	2,971
Other due to affiliates	771
Accrued expenses	375
Total liabilities	$ 64,388
NET ASSETS:	
Paid-in capital	$18,469,189
Distributable earnings	8,819,856
Net assets	$27,289,045
NET ASSET VALUE PER SHARE:	
No par value (unlimited number of shares authorized)	
Class I (based on $6,813,379/640,743 shares)	$ 10.63
Class II (based on $20,475,666/1,918,283 shares)	$ 10.67

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

STATEMENT OF OPERATIONS (UNAUDITED)

For the Six Months Ended 6/30/19

INVESTMENT INCOME:		
Dividends from unaffiliated issuers (net of foreign taxes withheld $1,271)	$ 454,240	
Interest from unaffiliated issuers	1,889	
Total investment income		$ 456,129
EXPENSES:		
Management fees	$ 106,733	
Administrative expense	30,071	
Distribution fees		
Class II	24,924	
Custodian fees	2,828	
Professional fees	24,905	
Printing expense	13,384	
Trustees' fees	3,685	
Miscellaneous	1,931	
Total expenses		$ 208,461
Net investment income		$ 247,668
REALIZED AND UNREALIZED GAIN (LOSS) ON INVESTMENTS:		
Net realized gain (loss) on:		
Investments in unaffiliated issuers	$2,632,712	
Other assets and liabilities denominated in foreign currencies	(2,051)	$2,630,661
Change in net unrealized appreciation (depreciation) on:		
Investments in unaffiliated issuers	$1,604,580	
Other assets and liabilities denominated in foreign currencies	6	$1,604,586
Net realized and unrealized gain (loss) on investments		$4,235,247
Net increase in net assets resulting from operations		$4,482,915

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

STATEMENTS OF CHANGES IN NET ASSETS

	Six Months Ended 6/30/19 (unaudited)	Year Ended 12/31/18
FROM OPERATIONS:		
Net investment income (loss)	$ 247,668	$ 445,003
Net realized gain (loss) on investments	2,630,661	8,229,310
Change in net unrealized appreciation (depreciation) on investments	1,604,586	(10,786,129)
Net increase (decrease) in net assets resulting from operations	$ 4,482,915	$ (2,111,816)
DISTRIBUTIONS TO SHAREOWNERS:		
Class I ($4.38 and $1.84 per share, respectively)	$ (2,022,173)	$ (878,301)
Class II ($4.36 and $1.80 per share, respectively)	(6,037,257)	(2,630,104)
Total distributions to shareowners	$ (8,059,430)	$ (3,508,405)
FROM PORTFOLIO SHARE TRANSACTIONS:		
Net proceeds from sales of shares	$ 514,261	$ 1,232,192
Reinvestment of distributions	8,059,430	3,508,405
Cost of shares repurchased	(2,311,598)	(5,932,824)
Net increase (decrease) in net assets resulting from Portfolio share transactions	$ 6,262,093	$ (1,192,227)
Net increase (decrease) in net assets	$ 2,685,578	$ (6,812,448)
NET ASSETS:		
Beginning of period	$24,603,467	$ 31,415,915
End of period	$27,289,045	$ 24,603,467

	Six Months Ended 6/30/19 Shares (unaudited)	Six Months Ended 6/30/19 Amount (unaudited)	Year Ended 12/31/18 Shares	Year Ended 12/31/18 Amount
CLASS I				
Shares sold	2,836	$ 39,915	11,761	$ 163,460
Reinvestment of distributions	183,832	2,022,173	64,839	878,301
Less shares repurchased	(40,925)	(576,062)	(89,553)	(1,245,960)
Net increase (decrease)	145,743	$ 1,486,026	(12,953)	$ (204,199)
CLASS II				
Shares sold	33,993	$ 474,346	74,372	$ 1,068,732
Reinvestment of distributions	547,192	6,037,257	193,673	2,630,104
Less shares repurchased	(125,119)	(1,735,536)	(334,280)	(4,686,864)
Net increase (decrease)	456,066	$ 4,776,067	(66,235)	$ (988,028)

FINANCIAL HIGHLIGHTS

	Six Months Ended 6/30/19 (unaudited)	Year Ended 12/31/18	Year Ended 12/31/17	Year Ended 12/31/16*	Year Ended 12/31/15*	Year Ended 12/31/14*
Class I						
Net asset value, beginning of period	$12.55	$15.40	$16.37	$ 19.53	$ 21.57	$ 18.77
Increase (decrease) from investment operations:						
Net investment income (loss)	$ 0.14(a)	$ 0.25(a)	$ 0.26(a)	$ 0.26(a)	$ 0.29(a)	$ 0.10
Net realized and unrealized gain (loss) on investments	2.32	(1.26)	0.28	0.95	0.56	5.37
Net increase (decrease) from investment operations	$ 2.46	$ (1.01)	$ 0.54	$ 1.21	$ 0.85	$ 5.47
Distributions to shareowners:						
Net investment income	$ (0.15)	$ (0.25)	$ (0.26)	$ (0.27)	$ (0.29)	$ (0.32)
Net realized gain	(4.23)	(1.59)	(1.25)	(4.10)	(2.60)	(2.35)
Total distributions	$ (4.38)	$ (1.84)	$ (1.51)	$ (4.37)	$ (2.89)	$ (2.67)
Net increase (decrease) in net asset value	$ (1.92)	$ (2.85)	$ (0.97)	$ (3.16)	$ (2.04)	$ 2.80
Net asset value, end of period	$10.63	$12.55	$15.40	$ 16.37	$ 19.53	$ 21.57
Total return (b)	18.61%(c)	(7.24)%	3.50%	6.05%	4.79%	30.87%
Ratio of net expenses to average net assets (d)	1.38%(e)	1.37%	1.12%	1.06%	1.03%	1.02%
Ratio of net investment income (loss) to average net assets	2.04%(e)	1.76%	1.63%	1.42%	1.45%	1.51%
Portfolio turnover rate	56%(c)	154%	8%	9%	17%	13%
Net assets, end of period (in thousands)	$6,813	$6,210	$7,824	$ 8,993	$10,215	$10,684

* The Portfolio was audited by an independent registered public accounting firm other than Ernst & Young LLP.
(a) The per-share data presented above is based on the average shares outstanding for the period presented.
(b) Assumes initial investment at net asset value at the beginning of each period, reinvestment of all distributions and the complete redemption of the investment at net asset value at the end of each period.
(c) Not annualized.
(d) Includes interest expense of 0.00%, 0.00%, 0.00%, 0.00%, 0.00% and 0.00†%, respectively.
(e) Annualized.
† Amount rounds to less than 0.01%.

NOTE: The above financial highlights do not reflect the deduction of non-portfolio expenses associated with variable insurance products, such as mortality and expense risk charges, separate account charges, and sales charges.

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

	Six Months Ended 6/30/19 (unaudited)	Year Ended 12/31/18	Year Ended 12/31/17	Year Ended 12/31/16*	Year Ended 12/31/15*	Year Ended 12/31/14*
Class II						
Net asset value, beginning of period	$ 12.58	$ 15.44	$ 16.40	$ 19.55	$ 21.60	$ 18.79
Increase (decrease) from investment operations:						
Net investment income (loss)	$ 0.12(a)	$0.21(a)	$ 0.22(a)	$ 0.21(a)	$ 0.24(a)	$ 0.06
Net realized and unrealized gain (loss) on investments	2.33	(1.27)	0.29	0.96	0.56	5.37
Net increase (decrease) from investment operations	$ 2.45	$ (1.06)	$ 0.51	$ 1.17	$ 0.80	$ 5.43
Distributions to shareowners:						
Net investment income	$ (0.13)	$ (0.21)	$ (0.22)	$ (0.22)	$ (0.25)	$ (0.27)
Net realized gain	(4.23)	(1.59)	(1.25)	(4.10)	(2.60)	(2.35)
Total distributions	$ (4.36)	$ (1.80)	$ (1.47)	$ (4.32)	$ (2.85)	$ (2.62)
Net increase (decrease) in net asset value	$ (1.91)	$ (2.86)	$ (0.96)	$ (3.15)	$ (2.05)	$ 2.81
Net asset value, end of period	$ 10.67	$ 12.58	$ 15.44	$ 16.40	$ 19.55	$ 21.60
Total return (b)	18.49%(c)	(7.54)%	3.30%	5.82%	4.52%	30.56%
Ratio of net expenses to average net assets (d)	1.63%(e)	1.62%	1.37%	1.31%	1.27%	1.26%
Ratio of net investment income (loss) to average net assets	1.80%(e)	1.51%	1.37%	1.18%	1.18%	1.28%
Portfolio turnover rate	56%(c)	154%	8%	9%	17%	13%
Net assets, end of period (in thousands)	$20,476	$18,393	$23,592	$28,116	$31,792	$37,169

* The Portfolio was audited by an independent registered public accounting firm other than Ernst & Young LLP.

(a) The per-share data presented above is based on the average shares outstanding for the period presented.

(b) Assumes initial investment at net asset value at the beginning of each period, reinvestment of all distributions, the complete redemption of the investment at net asset value at the end of each period and no sales charges. Total return would be reduced if sales charges were taken into account.

(c) Not annualized.

(d) Includes interest expense of 0.00%, 0.00%, 0.00%, 0.00%, 0.00% and 0.00†%, respectively.

(e) Annualized.

† Amount rounds to less than 0.01%.

NOTE: The above financial highlights do not reflect the deduction of non-portfolio expenses associated with variable insurance products, such as mortality and expense risk charges, separate account charges, and sales charges.

NOTES TO FINANCIAL STATEMENTS 6/30/19 (UNAUDITED)

1. Organization and Significant Accounting Policies

Pioneer Real Estate Shares VCT Portfolio (the "Portfolio") is one of 8 portfolios comprising Pioneer Variable Contracts Trust (the "Trust"), a Delaware statutory trust. The Portfolio is registered under the Investment Company Act of 1940 as a diversified, open-end management investment company. The investment objective of the Portfolio is to pursue long-term capital growth, with current income as a secondary objective.

The Portfolio offers two classes of shares designated as Class I and Class II shares. Each class of shares represents an interest in the same schedule of investments of the Portfolio and has identical rights (based on relative net asset values) to assets and liquidation proceeds. Share classes can bear different rates of class-specific fees and expenses, such as transfer agent and distribution fees. Differences in class-specific fees and expenses will result in differences in net investment income and, therefore, the payment of different dividends from net investment income earned by each class. The Amended and Restated Declaration of Trust of the Portfolio gives the Board of Trustees the flexibility to specify either per-share voting or dollar-weighted voting when submitting matters for shareowner approval. Under per-share voting, each share of a class of the Portfolio is entitled to one vote. Under dollar-weighted voting, a shareowner's voting power is determined not by the number of shares owned, but by the dollar value of the shares on the record date. Each share class has exclusive voting rights with respect to matters affecting only that class, including with respect to the distribution plan for that class. There is no distribution plan for Class I shares.

Portfolio shares may be purchased only by insurance companies for the purpose of funding variable annuity and variable life insurance contracts or by qualified pension and retirement plans.

Amundi Pioneer Asset Management, Inc., an indirect wholly owned subsidiary of Amundi and Amundi's wholly owned subsidiary, Amundi USA, Inc., serves as the Portfolio's investment adviser (the "Adviser"). Amundi Pioneer Distributor, Inc., an affiliate of Amundi Pioneer Asset Management, Inc., serves as the Portfolio's distributor (the "Distributor").

In August 2018, the Securities and Exchange Commission ("SEC") released a Disclosure Update and Simplification Final Rule. The Final Rule amends Regulation S-X disclosures requirements to conform them to U.S. Generally Accepted Accounting Principles ("U.S. GAAP") for investment companies. The Portfolio's financial statements were prepared in compliance with the new amendments to Regulation S-X.

The Portfolio is an investment company and follows investment company accounting and reporting guidance under U.S. GAAP. U.S. GAAP requires the management of the Portfolio to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of income, expenses and gain or loss on investments during the reporting period. Actual results could differ from those estimates.

The following is a summary of significant accounting policies followed by the Portfolio in the preparation of its financial statements:

A. Security Valuation

The net asset value of the Portfolio is computed once daily, on each day the New York Stock Exchange ("NYSE") is open, as of the close of regular trading on the NYSE.

Equity securities that have traded on an exchange are valued by using the last sale price on the principal exchange where they are traded. Equity securities that have not traded on the date of valuation, or securities for which sale prices are not available, generally are valued using the mean between the last bid and asked prices or, if both last bid and asked prices are not available, at the last quoted bid price. Last sale and bid and asked prices are provided by independent third party pricing services. In the case of equity securities not traded on an exchange, prices are typically determined by independent third party pricing services using a variety of techniques and methods.

The value of foreign securities is translated into U.S. dollars based on foreign currency exchange rate quotations supplied by a third party pricing source. Trading in non-U.S. equity securities is substantially completed each day at various times prior to the close of the NYSE. The values of such securities used in computing the net asset value of the Portfolio's shares are determined as of such times. The Portfolio may use a fair value model developed by an independent pricing service to value non-U.S. equity securities.

Securities for which independent pricing services or broker-dealers are unable to supply prices or for which market prices and/or quotations are not readily available or are considered to be unreliable are valued by a fair valuation team comprised of certain personnel of the Adviser pursuant to procedures adopted by the Portfolio's Board of Trustees. The Adviser's fair valuation team uses fair value methods approved by the Valuation Committee of the Board of Trustees. The Adviser's fair valuation team is responsible for monitoring developments that may impact fair valued securities and for discussing and assessing fair values on an ongoing basis, and at least quarterly, with the Valuation Committee of the Board of Trustees.

Inputs used when applying fair value methods to value a security may include credit ratings, the financial condition of the company, current market conditions and comparable securities. The Portfolio may use fair value methods if it is determined that a significant event has occurred after the close of the exchange or market on which the security trades and prior to the determination of the Portfolio's net asset value. Examples of a significant event might include political or economic news, corporate restructurings, natural disasters, terrorist activity or trading halts. Thus, the valuation of the Portfolio's securities may differ significantly from exchange prices, and such differences could be material.

At June 30, 2019, no securities were valued using fair value methods (other than securities valued using prices supplied by independent pricing services, broker-dealers or using a third party insurance industry pricing model).

B. Investment Income and Transactions

Dividend income is recorded on the ex-dividend date, except that certain dividends from foreign securities where the ex-dividend date may have passed are recorded as soon as the Portfolio becomes aware of the ex-dividend data in the exercise of reasonable diligence.

Interest income, including interest on income-bearing cash accounts, is recorded on the accrual basis. Dividend and interest income are reported net of unrecoverable foreign taxes withheld at the applicable country rates and net of income accrued on defaulted securities.

Interest and dividend income payable by delivery of additional shares is reclassified as PIK (payment-in-kind) income upon receipt and is included in interest and dividend income, respectively.

Security transactions are recorded as of trade date. Gains and losses on sales of investments are calculated on the identified cost method for both financial reporting and federal income tax purposes.

C. Foreign Currency Translation

The books and records of the Portfolio are maintained in U.S. dollars. Amounts denominated in foreign currencies are translated into U.S. dollars using current exchange rates.

Net realized gains and losses on foreign currency transactions, if any, represent, among other things, the net realized gains and losses on foreign currency contracts, disposition of foreign currencies and the difference between the amount of income accrued and the U.S. dollars actually received. Further, the effects of changes in foreign currency exchange rates on investments are not segregated on the Statement of Operations from the effects of changes in the market prices of those securities, but are included with the net realized and unrealized gain or loss on investments.

D. Federal Income Taxes

It is the Portfolio's policy to comply with the requirements of the Internal Revenue Code applicable to regulated investment companies and to distribute all of its net taxable income and net realized capital gains, if any, to its shareowners. Therefore, no provision for federal income taxes is required. As of December 31, 2018, the Portfolio did not accrue any interest or penalties with respect to uncertain tax positions, which, if applicable, would be recorded as an income tax expense on the Statement of Operations. Tax returns filed within the prior three years remain subject to examination by federal and state tax authorities.

A portion of the dividend income recorded by the Portfolio is from distributions by publicly traded Real Estate Investment Trusts ("REITs"), and such distributions for tax purposes may also consist of capital gains and return of capital. The actual return of capital and capital gains portions of such distributions will be determined by formal notifications from the REITs subsequent to the calendar year-end. Distributions received from the REITs that are determined to be a return of capital are recorded by the Portfolio as a reduction of the cost basis of the securities held and those determined to be capital gain are reflected as such on the Statement of Operations.

The amount and character of income and capital gain distributions to shareowners are determined in accordance with federal income tax rules, which may differ from U.S. GAAP. Distributions in excess of net investment income or net realized gains are temporary over distributions for financial statement purposes resulting from differences in the recognition or classification of income or distributions for financial statement and tax purposes. Capital accounts within the financial statements are adjusted for permanent book/tax differences to reflect tax character, but are not adjusted for temporary differences.

The tax character of current year distributions payable will be determined at the end of the current taxable year. The tax character of distributions paid during the year ended December 31, 2018 was as follows:

	2018
Distributions paid from:	
Ordinary income	$ 438,489
Long-term capital gain	3,069,916
Total	$3,508,405

The following shows the components of distributable earnings on a federal income tax basis at December 31, 2018:

	2018
Distributable Earnings:	
Undistributed long-term capital gain	$ 7,805,705
Current Year Dividend Payable	(103)
Net unrealized appreciation	4,590,769
Total	$12,396,371

The difference between book basis and tax basis unrealized appreciation is attributable to the tax deferral of losses on wash sales and adjustments relating to Passive Foreign Investment Companies (PFIC).

E. Portfolio Shares and Class Allocations

The Portfolio records sales and repurchases of its shares as of trade date. Distribution fees for Class II shares are calculated based on the average daily net asset value attributable to Class II shares of the Portfolio (see Note 4). Class I shares do not pay distribution fees.

Income, common expenses (excluding transfer agent and distribution fees) and realized and unrealized gains and losses are calculated at the Portfolio level and allocated daily to each class of shares based on its respective percentage of adjusted net assets at the beginning of the day.

All expenses and fees paid to the Portfolio's transfer agent for its services are allocated between the classes of shares based on the number of accounts in each class and the ratable allocation of related out-of-pocket expenses (see Note 3).

Dividends and distributions to shareowners are recorded on the ex-dividend date. Distributions paid by the Portfolio with respect to each class of shares are calculated in the same manner and at the same time, except that net investment income dividends to Class I and Class II shares can reflect different transfer agent and distribution expense rates.

F. Risks

The value of securities held by the Portfolio may go up or down, sometimes rapidly or unpredictably, due to general market conditions, such as real or perceived adverse economic, political or regulatory conditions, inflation, changes in interest rates, lack of liquidity in the bond markets or adverse investor sentiment. In the past several years, financial markets have experienced increased volatility, depressed valuations, decreased liquidity and heightened uncertainty. These conditions may continue, recur, worsen or spread.

Because the Portfolio may invest a substantial portion of its assets in REITs, the Portfolio may be subject to certain risks associated with direct investments in REITs. REITs may be affected by changes in the value of their underlying properties and by defaults by borrowers or tenants. REITs depend generally on their ability to generate cash flow to make distributions to shareowners, and certain REITs have self-liquidation provisions by which mortgages held may be paid in full and distributions of capital return may be made at any time. In addition, the performance of a REIT may be affected by its failure to qualify for tax-free pass-through of income under the Internal Revenue Code or its failure to maintain exemption from registration under the Investment Company Act of 1940.

With the increased use of technologies such as the Internet to conduct business, the Portfolio is susceptible to operational, information security and related risks. While the Portfolio's Adviser has established business continuity plans in the event of, and risk management systems to prevent, limit or mitigate, such cyber-attacks, there are inherent limitations in such plans and systems, including the possibility that certain risks have not been identified. Furthermore, the Portfolio cannot control the cybersecurity plans and systems put in place by service providers to the Portfolio such as Brown Brothers Harriman & Co., the Portfolio's custodian and accounting agent, and DST Asset Manager Solutions, Inc., the Portfolio's transfer agent. In addition, many beneficial owners of Portfolio shares hold them through accounts at broker-dealers, retirement platforms and other financial market participants over which neither the Portfolio nor Amundi Pioneer exercises control. Each of these may in turn rely on service providers to them, which are also subject to the risk of cyber-attacks. Cybersecurity failures or breaches at Amundi Pioneer or the Portfolio's service providers or intermediaries have the ability to cause disruptions and impact business operations, potentially resulting in financial losses, interference with the Portfolio's ability to calculate its net asset value, impediments to trading, the inability of Portfolio shareowners to effect share purchases, redemptions or exchanges or receive distributions, loss of or unauthorized access to private shareowner information and violations of applicable privacy and other laws, regulatory fines, penalties, reputational damage, or additional compliance costs. Such costs and losses may not be covered under any insurance. In addition, maintaining vigilance against cyber-attacks may involve substantial costs over time, and system enhancements may themselves be subject to cyber-attacks.

The Portfolio's prospectus contains unaudited information regarding the Portfolio's principal risks. Please refer to that document when considering the Portfolio's principal risks.

2. Management Agreement

The Adviser manages the Portfolio. Management fees are calculated daily at the annual rate of 0.80% of the Portfolio's average daily net assets up to $500 million and 0.75% of the Portfolio's average daily net assets over $500 million. For the six months ended June 30, 2019, the effective management fee was equivalent to 0.80% (annualized) of the Portfolio's average daily net assets.

In addition, under the management and administration agreements, certain other services and costs, including accounting, regulatory reporting and insurance premiums, are paid by the Portfolio as administrative reimbursements. Included in "Due to affiliates" reflected on the Statement of Assets and Liabilities is $3,046 in management fees, administrative costs and certain other reimbursements payable to the Adviser at June 30, 2019.

3. Transfer Agent

DST Asset Manager Solutions, Inc. serves as the transfer agent to the Portfolio at negotiated rates. Transfer agent fees and payables shown on the Statement of Operations and the Statement of Assets and Liabilities, respectively, include sub-transfer agent expenses incurred through the Portfolio's omnibus relationship contracts.

4. Distribution Plan

The Portfolio has adopted a distribution plan (the "Plan") pursuant to Rule 12b-1 of the Investment Company Act of 1940 with respect to Class II shares. Pursuant to the Plan, the Portfolio pays the Distributor a distribution fee of 0.25% of the average daily net assets attributable to Class II shares to compensate the Distributor for (1) distribution services and (2) personal and account maintenance services performed and expenses incurred by the Distributor in connection with the Portfolio's Class II shares. Included in "Due to affiliates" reflected on the Statement of Assets and Liabilities is $696 in distribution fees payable to the Distributor at June 30, 2019.

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Amundi Pioneer
ASSET MANAGEMENT

Pioneer Variable Contracts Trust

Investment Adviser and Administrator
Amundi Pioneer Asset Management, Inc.

Custodian and Sub-Administrator
Brown Brothers Harriman & Co.

Principal Underwriter
Amundi Pioneer Distributor, Inc.

Legal Counsel
Morgan, Lewis & Bockius LLP

Transfer Agent
DST Asset Manager Solutions, Inc.

Amundi Pioneer
ASSET MANAGEMENT

Proxy Voting Policies and Procedures of the Portfolio are available without charge, upon request, by calling our toll free number (1-800-225-6292). Information regarding how the Portfolio voted proxies relating to Portfolio securities during the most recent 12-month period ended June 30 is publicly available to shareowners at www.amundipioneer.com/us. This information is also available on the Securities and Exchange Commission's web site at www.sec.gov.

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