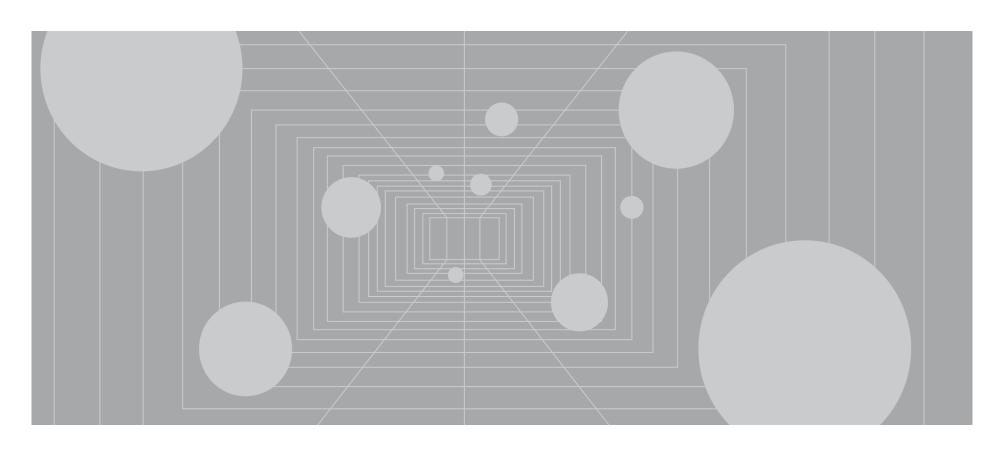
## INDEX AND SELECTED BENCHMARK STATISTICS





DISCLAIMER AS OF DECEMBER 31, 2019

#### DISCLAIMER

Our goal is to provide you with the most accurate and relevant performance information possible; as a result, Cambridge Associates' research organization continually monitors the constantly evolving private investments space and its fund managers. When we discern material changes in the structure of an asset class and/or a fund's investment strategy, it is in the interest of all users of our benchmark statistics that we implement the appropriate classification realignments.

In addition, Cambridge Associates is always working to grow our private investments performance database and ensure that our benchmarks are as representative as possible of investors' institutional-quality opportunity set. As a result we continually add funds to the database (both newly-raised funds and backfill funds) and occasionally we must remove funds that cease reporting. Our private investments performance database is dynamic and will reflect both classification adjustments and changes to the underlying pool of contributing funds. As a result, you may notice quarter to quarter changes in the results of some historical benchmark return analyses.

OVERVIEW AS OF DECEMBER 31, 2019

Cambridge Associates' Private Investments Database is one of the most robust collections of institutional quality private fund performance. It contains the historical performance records of over 2,100 fund managers and their over 8,000 funds. In addition, we capture the performance information (gross) of over 80,000 investments underlying our venture capital, growth equity, and buyout funds. This is one of the largest collections of portfolio-level performance information in the world and represents the investments of approximately 79% of these funds on a count basis and 87% on a total commitment basis. This fund and investment-level performance information is drawn from the quarterly and audited annual financial statements of the fund managers and each manager's reported performance numbers are independently recreated from the financial statements and verified by Cambridge Associates.

### Institutional Quality Data

Cambridge Associates strives to include only institutional quality funds in our benchmarks. "Institutional quality" funds, in our definition, tend to meet the following criteria: closed-end funds, commingled funds that invest 3rd party capital (we exclude firms that invest off of their balance sheet, such as a bank's principal investing group or a corporate's venture capital arm), and fund vehicles. This institutional quality screen seeks to provide investors with performance dataconsistent with their investible opportunity set.

#### Sources of Benchmark Data

Our benchmark database utilizes the quarterly unaudited and annual audited fund financial statements produced by the fund managers (GPs) for their Limited Partners (LPs). These documents are provided to Cambridge Associates by the fund managers themselves. Unlike other data providers, Cambridge Associates does not use Freedom of Information Act (FOIA) requests, regulatory filings, manager surveys, or press "scrapings" to obtain information. Our goal is to have a complete historical record of the quarterly cash flows and net asset values for all funds in the benchmarks. We use a number of paths to encourage fund managers to submit their performance data to our database: our clients for whom we provide private investment performance reporting, our research organization's regular meetings with thousands of managers, our special projects designed to enhance existing benchmarks or launch new ones, our exclusive relationships with over ten globally-diverse fund manager associations, and finally, our exclusive relationships with Thomson Reuters and the Institutional Limited Partners Association (ILPA). By leveraging these varied sources and proprietary relationships, Cambridge Associates has constructed a rich and diversified benchmark data set.

## Vintage Year Definition

Vintage year is defined as the legal inception date as noted in a fund's financial statement. This date can usually be found in the first note to the audited financial statements and is prior to the first close or capital call.

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## TIMING OF FINAL BENCHMARKS AND DATA EVOLUTION

AS OF DECEMBER 31, 2019

The Cambridge Associates' benchmarks are reported on a one-quarter lag from the end of the performance quarter due to the reporting time frame of private investments fund managers.

**Published Data:** When the vast majority of a benchmark group's (organized by asset class, e.g. Venture Capital or Real Estate) performance information is updated for a performance quarter, that benchmark is considered final and the data is "published" via the quarterly benchmark reports.

**Changes to Data:** After a benchmark group is published, any updates to historical data for these funds, which can include adding a fund and its performance history to the database ("backfills") and/or updating past information for an existing fund due to late-arriving, updated, or refined information, would be reflected when that group is published for the next performance quarter.

In addition, Cambridge Associates may change the classification of certain funds; this often driven by the evolution of private investments and the resulting need to introduce new benchmarks or refine our classification scheme. For example, as growth equity emerged as an asset class we reclassified certain venture capital and buyout funds accordingly.

**Survivorship Bias:** In order to track the performance of a fund in our benchmarks, we require the complete set of financial statements from the fund's inception to the most current reporting date. When an active fund stops providing financial statements, we reach out to the manager and make several attempts to encourage them to continue to submit their data. We may, during this communication period, roll forward the fund's last reported quarter's net asset value (NAV) for several quarters. When we are convinced that the manager will not resume reporting to us, the fund's entire performance history is removed from the database.

When fund managers stop reporting before their fund's return history is complete, an element of "survivorship bias" may be introduced to a performance database, which could skew the reported returns upwards if the funds dropping out had poorer returns than those funds that remained. Survivorship bias can affect all investment manager databases, including those for public stock managers and hedge funds. Compared to public stocks and hedge funds, however, the illiquid nature of private investments can actually help limit this survivorship effect. Whereas an underperforming stock manager may simply close up shop or drop out of databases as clients liquidate their positions and fire the manager, private investment partnerships owning illiquid assets continue to exist and require reporting to the limited partners, even if the original manager ceases to exist.

Over the last ten years the number of fund managers that stopped reporting to Cambridge Associates before liquidation represented an average of 0.7% (per year) of the total number of funds in the database during the respective year, and an average of 0.5% (per year) as a percentage of total NAV in the database during that respective year. During that same period the overall number of funds in our database increased by an average of 7% (per year). The performance of the small number of funds that have stopped reporting has been spread amongst all quartiles and has not been concentrated consistently in the poorer performing quartiles.

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## US VENTURE CAPITAL: FUND INDEX ANALYSIS





#### **FUND INDEX SUMMARY: HORIZON POOLED RETURN**

Net to Limited Partners

1-QUARTER	1-YEAR	3-YEAR	5-YEAR	10-YEAR	15-YEAR	20-YEAR	25-YEAR
5.54	19.28	16.21	12.08	14.55	10.96	6.60	35.96
4.76	19.39	16.91	12.73	15.45	10.93	6.47	57.32
6.52	21.88	17.97	12.39	14.45	12.61	7.47	11.46
6.54	18.01	14.38	10.88	13.18	10.47	6.53	13.51
-0.01	9.71	4.35	3.23	3.96	4.21	5.14	5.63
6.67	25.34	15.73	12.59	13.40	9.45	7.19	10.90
7.68	27.56	9.84	7.89	12.06	8.74	8.67	10.62
9.10	31.54	15.37	11.69	13.60	9.22	6.21	10.25
12.17	35.23	18.57	13.63	14.74	9.91	4.03	10.43
9.04	31.43	15.05	11.48	13.54	9.12	6.29	10.33
9.94	25.52	8.59	8.23	11.83	7.92	7.59	9.35
9.07	31.49	15.27	11.70	13.56	9.00	6.06	10.22
9.08	31.02	14.52	11.38	13.44	9.11	6.37	10.22
	5.54 4.76 6.52 6.54 -0.01 6.67 7.68 9.10 12.17 9.04 9.94 9.07	5.54 19.28 4.76 19.39 6.52 21.88 6.54 18.01 -0.01 9.71 6.67 25.34 7.68 27.56 9.10 31.54 12.17 35.23 9.04 31.43 9.94 25.52 9.07 31.49	5.54       19.28       16.21         4.76       19.39       16.91         6.52       21.88       17.97         6.54       18.01       14.38         -0.01       9.71       4.35         6.67       25.34       15.73         7.68       27.56       9.84         9.10       31.54       15.37         12.17       35.23       18.57         9.04       31.43       15.05         9.94       25.52       8.59         9.07       31.49       15.27	5.54       19.28       16.21       12.08         4.76       19.39       16.91       12.73         6.52       21.88       17.97       12.39         6.54       18.01       14.38       10.88         -0.01       9.71       4.35       3.23         6.67       25.34       15.73       12.59         7.68       27.56       9.84       7.89         9.10       31.54       15.37       11.69         12.17       35.23       18.57       13.63         9.04       31.43       15.05       11.48         9.94       25.52       8.59       8.23         9.07       31.49       15.27       11.70	5.54       19.28       16.21       12.08       14.55         4.76       19.39       16.91       12.73       15.45         6.52       21.88       17.97       12.39       14.45         6.54       18.01       14.38       10.88       13.18         -0.01       9.71       4.35       3.23       3.96         6.67       25.34       15.73       12.59       13.40         7.68       27.56       9.84       7.89       12.06         9.10       31.54       15.37       11.69       13.60         12.17       35.23       18.57       13.63       14.74         9.04       31.43       15.05       11.48       13.54         9.94       25.52       8.59       8.23       11.83         9.07       31.49       15.27       11.70       13.56	5.54         19.28         16.21         12.08         14.55         10.96           4.76         19.39         16.91         12.73         15.45         10.93           6.52         21.88         17.97         12.39         14.45         12.61           6.54         18.01         14.38         10.88         13.18         10.47           -0.01         9.71         4.35         3.23         3.96         4.21           6.67         25.34         15.73         12.59         13.40         9.45           7.68         27.56         9.84         7.89         12.06         8.74           9.10         31.54         15.37         11.69         13.60         9.22           12.17         35.23         18.57         13.63         14.74         9.91           9.04         31.43         15.05         11.48         13.54         9.12           9.94         25.52         8.59         8.23         11.83         7.92           9.07         31.49         15.27         11.70         13.56         9.00	5.54         19.28         16.21         12.08         14.55         10.96         6.60           4.76         19.39         16.91         12.73         15.45         10.93         6.47           6.52         21.88         17.97         12.39         14.45         12.61         7.47           6.54         18.01         14.38         10.88         13.18         10.47         6.53           -0.01         9.71         4.35         3.23         3.96         4.21         5.14           6.67         25.34         15.73         12.59         13.40         9.45         7.19           7.68         27.56         9.84         7.89         12.06         8.74         8.67           9.10         31.54         15.37         11.69         13.60         9.22         6.21           12.17         35.23         18.57         13.63         14.74         9.91         4.03           9.04         31.43         15.05         11.48         13.54         9.12         6.29           9.94         25.52         8.59         8.23         11.83         7.92         7.59           9.07         31.49         15.27         11.70

The index is a horizon calculation based on data compiled from 1,942 US venture capital funds, including fully liquidated partnerships, formed between 1981 and 2019.

¹ Private indexes are pooled horizon internal rate of return (IRR) calculations, net of fees, expenses, and carried interest. The timing and magnitude of fund cash flows are integral to the IRR performance calculation. Public indexes are average annual compounded return (AACR) calculations which are time weighted measures over the specified time horizon, and are shown for reference and directional purposes only. Due to the fundamental differences between the two calculations, direct comparison of IRRs to AACRs is not recommended. For a more accurate means of comparing private investment performance relative to public alternatives, see the analyses in this document using CA Modified Public Market Equivalent (mPME). See Methodology section for more detail.

## FUND INDEX SUMMARY: HORIZON POOLED RETURN COMPARED TO CAMODIFIED PUBLIC MARKET EQUIVALENT (MPME)

Net to Limited Partners

CA INDEX	1-YEAR	3-YEAR	5-YEAR	10-YEAR	15-YEAR	20-YEAR	25-YEAR
CAMBRIDGE ASSOCIATES LLC US VENTURE CAPITAL INDEX $^{\odot 1}$	19.28	16.21	12.08	14.55	10.96	6.60	35.96
MPME ANALYSIS <sup>2</sup>							
S&P 500 Index	31.58	15.27	11.53	13.64	9.33	7.53	9.97
Value-Add (bps)	-1,229	94	56	91	163	-93	2,599
Russell 2000® Index	25.59	8.65	8.20	12.33	8.29	8.42	9.49
Value-Add (bps)	-631	757	388	223	267	-182	2,647
Russell 3000® Index	31.12	14.58	11.08	13.55	9.35	7.73	9.97
Value-Add (bps)	-1,183	164	100	100	161	-114	2,599
Constructed Index: NASDAQ Composite Price Index/NASDAQ Composite Total Return <sup>3</sup>	36.85	19.98	14.69	16.00	11.33	7.88	11.83
Value-Add (bps)	-1,757	-377	-261	-144	-37	-129	2,413

The index is a horizon calculation based on data compiled from 1,942 US venture capital funds, including fully liquidated partnerships, formed between 1981 and 2019.

<sup>1</sup>Pooled horizon return, net of fees, expenses, and carried interest.



## FUND INDEX DETAILS: ONE QUARTER HORIZON POOLED RETURN

QUARTER ENDING	HORIZON RETURN
1995 Q1	6.95
1995 Q2	8.55
1995 Q3	11.33
1995 Q4	13.58
1996 Q1	8.78
1996 Q2	16.56
1996 Q3	4.69
1996 Q4	6.51
1997 Q1	-0.15
1997 Q2	14.33
1997 Q3	14.33
1997 Q4	2.91
1998 Q1	9.97
1998 Q2	5.33
1998 Q3	-2.03
1998 Q4	15.11
1999 Q1	19.49
1999 Q2	38.88
1999 Q3	29.13
1999 Q4	84.46
2000 Q1	29.53
2000 Q2	3.64
2000 Q3	10.74
2000 Q4	-20.05
2001 Q1	-15.18
2001 Q2	-7.27

QUARTER	HORIZON
ENDING	RETURN
2001 Q3	-17.33
2001 Q4	-7.85
2002 Q1	-8.34
2002 Q2	-11.01
2002 Q3	-9.96
2002 Q4	-9.93
2003 Q1	-4.11
2003 Q2	0.56
2003 Q3	-1.34
2003 Q4	1.09
2004 Q1	1.56
2004 Q2	0.02
2004 Q3	7.00
2004 Q4	6.27
2005 Q1	-2.05
2005 Q2	2.38
2005 Q3	3.43
2005 Q4	2.14
2006 Q1	3.69
2006 Q2	1.16
2006 Q3	1.96
2006 Q4	9.62
2007 Q1	2.39
2007 Q2	6.37
2007 Q3	2.69
2007 Q4	3.61

QUARTER ENDING	HORIZON RETURN
2008 Q1	-1.80
2008 Q2	0.28
2008 Q3	-2.80
2008 Q4	-12.36
2009 Q1	-2.59
2009 Q2	0.22
2009 Q3	2.05
2009 Q4	3.27
2010 Q1	0.61
2010 Q2	0.61
2010 Q3	3.90
2010 Q4	8.25
2011 Q1	4.89
2011 Q2	7.18
2011 Q3	-0.72
2011 Q4	1.46
2012 Q1	4.49
2012 Q2	0.77
2012 Q3	0.76
2012 Q4	1.08
2013 Q1	2.53
2013 Q2	4.51
2013 Q3	6.63
2013 Q4	12.84
2014 Q1	4.81
2014 Q2	3.04

QUARTER ENDING	HORIZON RETURN
2014 Q3	2.69
2014 Q4	10.36
2015 Q1	4.43
2015 Q2	6.86
2015 Q3	-0.42
2015 Q3 2015 Q4	1.70
2015 Q4 2016 Q1	-3.46
2016 Q2	0.52
2016 Q3	3.30
2016 Q4	-0.04
2017 Q1	3.26
2017 Q2	1.40
2017 Q3	3.40
2017 Q4	3.09
2018 Q1	3.90
2018 Q2	6.11
2018 Q3	5.39
2018 Q4	1.68
2019 Q1	6.48
2019 Q2	6.87
2019 Q3	-0.74
2019 Q4	5.54

AS OF DECEMBER 31, 2019 **US VENTURE CAPITAL** 

## FUND INDEX DETAILS: HORIZON POOLED RETURN

MULTI-YEAR RETURNS											
YEARS	HORIZON RETURN (%)	YEARS	HORIZON RETURN (%)								
1 Year	19.28	14 Years	11.28								
2 Years	18.72	15 Years	10.96								
3 Years	16.21	16 Years	11.22								
4 Years	11.79	17 Years	10.50								
5 Years	12.08	18 Years	8.21								
6 Years	13.92	19 Years	5.68								
7 Years	16.32	20 Years	6.60								
8 Years	14.87	21 Years	21.69								
9 Years	14.64	22 Years	23.95								
10 Years	14.55	23 Years	26.89								
11 Years	13.34	24 Years	31.51								
12 Years	10.47	25 Years	35.96								
13 Years	10.86										

	ONE YEAR ROLLING RETURNS											
ONE YEAR ENDED	HORIZON RETURN (%)	ONE YEAR ENDED	HORIZON RETURN (%)									
12/31/2019	19.28	12/31/2006	17.40									
12/31/2018	18.17	12/31/2005	5.97									
12/31/2017	11.61	12/31/2004	15.82									
12/31/2016	0.16	12/31/2003	-3.59									
12/31/2015	13.16	12/31/2002	-33.89									
12/31/2014	22.15	12/31/2001	-40.05									
12/31/2013	28.58	12/31/2000	26.34									
12/31/2012	7.30	12/31/1999	290.44									
12/31/2011	13.18	12/31/1998	30.66									
12/31/2010	13.90	12/31/1997	34.29									
12/31/2009	3.10	12/31/1996	41.95									
12/31/2008	-16.54	12/31/1995	46.28									
12/31/2007	15.88											

# US VENTURE CAPITAL: FUND SINCE INCEPTION ANALYSIS





AS OF DECEMBER 31, 2019

#### SINCE INCEPTION IRR & MULTIPLES BY FUND VINTAGE YEAR

VINTAGE YEAR	POOLED RETURN (%)	ARITHMETIC MEAN (%)	MEDIAN (%)	EQUAL-WEIGHTED POOLED RETURN (%)	UPPER QUARTILE (%)	LOWER QUARTILE (%)	STANDARD DEVIATION (%)	DPI	RVPI	TVPI	NUMBER OF FUNDS
1995	88.48	56.60	41.65	77.99	80.62	21.54	58.50	6.07	0.00	6.07	35
1996	102.93	63.46	40.87	90.61	86.09	10.28	79.26	5.07	0.00	5.07	39
1997	92.59	56.10	13.48	74.74	64.15	-1.34	102.45	3.12	0.00	3.12	70
1998	11.99	17.07	-0.30	14.59	16.21	-6.27	72.32	1.49	0.01	1.50	79
1999	-0.76	-3.90	-3.21	-1.27	3.46	-12.52	19.42	0.93	0.02	0.95	103
2000	0.70	-2.20	-1.30	0.45	4.94	-6.46	12.61	1.01	0.05	1.05	151
2001	2.99	-0.13	1.78	4.02	7.89	-3.01	19.11	1.16	0.05	1.21	51
2002	-0.57	-0.66	-1.04	2.15	5.70	-6.46	9.73	0.91	0.06	0.97	32
2003	9.48	1.49	2.32	5.78	8.57	-7.18	14.91	1.67	0.12	1.79	35
2004	8.30	3.66	2.48	8.19	8.27	-2.33	18.66	1.44	0.26	1.70	65
2005	7.98	3.20	5.25	7.89	11.23	-0.60	17.55	1.34	0.37	1.71	63
2006	8.91	4.50	7.43	7.36	12.56	-3.42	11.85	1.33	0.41	1.74	78
2007	15.64	13.83	10.73	15.95	22.73	3.92	15.96	1.60	0.71	2.31	68
2008	11.59	9.30	7.05	10.92	17.07	1.15	12.73	1.18	0.62	1.80	64
2009	15.12	13.50	11.34	15.06	19.61	5.82	13.18	1.25	0.87	2.11	23
2010	26.16	20.13	16.87	22.78	27.70	7.45	17.99	1.66	1.63	3.29	48
2011	19.35	14.27	15.29	17.13	22.82	7.77	14.01	0.81	1.60	2.41	44
2012	19.24	16.25	14.51	20.73	19.86	7.36	14.62	0.76	1.55	2.31	55
2013	22.22	24.42	16.71	20.35	23.23	9.76	49.49	0.57	1.54	2.11	59
2014	18.45	18.20	16.14	19.59	23.93	10.76	16.58	0.26	1.52	1.79	82
2015	20.18	21.08	17.84	19.11	25.39	10.92	30.74	0.17	1.42	1.59	78
2016	23.44	20.33	17.17	21.68	31.43	10.28	15.19	0.06	1.38	1.45	76
2017	25.87	18.16	10.99	24.85	27.01	-0.14	29.87	0.05	1.26	1.31	68
2018	8.56	-5.04	-6.91	6.55	8.21	-16.21	23.88	0.01	1.05	1.06	78

#### AS OF DECEMBER 31, 2019 **US VENTURE CAPITAL**

### SINCE INCEPTION IRR & MULTIPLES COMPARED TO CA MODIFIED PUBLIC MARKET EQUIVALENT (MPME)

Net to Limited Partners

		Р	VALUE-ADD (BPS	)	TOTAL VALUE TO PAID IN (TVPI)			DISTRIBUTIONS TO PAID IN (DPI)				
VINTAGE	NUMBER	CA BENCHMARK INDEX	S	&P 500 INDEX	RUSSEL	L 2000 <sup>®</sup> INDEX	CA BENCHMARK INDEX	S&P 500 INDEX	RUSSELL 2000® INDEX	CA BENCHMARK INDEX	S&P 500 INDEX	RUSSELL 2000® INDEX
YEAR	OF FUNDS	IRR	MPME IRR	VALUE-ADD	MPME IRR	VALUE-ADD	TVPI	MPME TVPI	MPME TVPI	DPI	MPME DPI	MPME DPI
1995	35	88.48	19.33	6,915	10.10	7,838	6.07	1.55	1.31	6.07	1.55	1.31
1996	39	102.93	12.32	9,061	8.32	9,461	5.07	1.37	1.30	5.07	1.36	1.29
1997	70	92.59	5.83	8,675	7.33	8,526	3.12	1.19	1.28	3.12	1.18	1.27
1998	79	11.99	1.58	1,041	7.44	455	1.50	1.08	1.42	1.49	1.07	1.41
1999	103	-0.76	2.13	-288	6.76	-752	0.95	1.15	1.52	0.93	1.10	1.46
2000	151	0.70	5.37	-467	7.83	-713	1.05	1.49	1.73	1.01	1.35	1.59
2001	51	2.99	6.86	-387	8.34	-535	1.21	1.59	1.71	1.16	1.47	1.60
2002	32	-0.57	7.76	-833	8.47	-904	0.97	1.75	1.79	0.91	1.48	1.56
2003	35	9.48	7.10	238	7.38	211	1.79	1.57	1.58	1.67	1.42	1.46
2004	65	8.30	7.76	54	7.57	73	1.70	1.71	1.66	1.44	1.37	1.37
2005	63	7.98	9.46	-149	9.01	-103	1.71	1.91	1.82	1.34	1.48	1.46
2006	78	8.91	10.13	-122	9.63	-72	1.74	1.93	1.83	1.33	1.39	1.37
2007	68	15.64	12.08	356	11.34	430	2.31	1.94	1.82	1.60	1.33	1.31
2008	64	11.59	13.89	-230	12.33	-73	1.80	2.09	1.89	1.18	1.26	1.20
2009	23	15.12	14.07	105	12.01	311	2.11	2.04	1.81	1.25	1.16	1.09
2010	48	26.16	14.09	1,207	11.47	1,469	3.29	1.95	1.71	1.66	0.99	0.92
2011	44	19.35	13.88	547	10.80	854	2.41	1.89	1.64	0.81	0.66	0.61
2012	55	19.24	13.06	617	9.79	945	2.31	1.78	1.54	0.76	0.61	0.56
2013	59	22.22	12.84	939	8.94	1,328	2.11	1.55	1.36	0.57	0.44	0.41
2014	82	18.45	13.32	514	9.40	905	1.79	1.53	1.35	0.26	0.23	0.22
2015	78	20.18	14.46	572	9.57	1,061	1.59	1.40	1.25	0.17	0.15	0.15
2016	76	23.44	15.13	831	8.41	1,503	1.45	1.28	1.15	0.06	0.06	0.05
2017	68	25.87	16.59	928	8.71	1,716	1.31	1.19	1.10	0.05	0.04	0.04
2018	78	8.56	20.26	-1,170	11.99	-342	1.06	1.15	1.09	0.01	0.01	0.01



Notes: Based on data compiled from 1,544 US venture capital funds, including fully liquidated partnerships, formed between 1995 and 2018. Internal rates of returns are net of fees, expenses and carried interest. CA research shows that most funds take at least six years to settle into their final quartile ranking, and previous to this settling they typically rank in 2-3 other quartiles; therefore fund or benchmark performance metrics from more recent vintage years may be less meaningful. Benchmarks with "-" have an insufficient number of funds in the vintage year sample to produce a meaningful return.
mPME Note: Refer to Methodology page for further details on Cambridge Associates Modified PME (mPME).

#### SINCE INCEPTION IRR & MULTIPLES COMPARED TO CA MODIFIED PUBLIC MARKET EQUIVALENT (MPME)

Net to Limited Partners

		POOLED IRR (%) AND IRR-BASED VALUE-ADD (BPS)					TOTAL	VALUE TO PAID I	N (TVPI)	DISTRIBUTIONS TO PAID IN (DPI)			
VINTAGE	NUMBER	CA BENCHMARK INDEX	RUSSEL	L 3000 <sup>®</sup> INDEX		UCTED INDEX: Q COMPOSITE <sup>1</sup>	CA BENCHMARK INDEX	RUSSELL 3000 <sup>®</sup> INDEX	CONSTRUCTED INDEX: NASDAQ COMPOSITE <sup>1</sup>	CA BENCHMARK INDEX	RUSSELL 3000 <sup>®</sup> INDEX	CONSTRUCTED INDEX: NASDAQ COMPOSITE <sup>1</sup>	
YEAR	OF FUNDS	IRR	MPME IRR	VALUE-ADD	MPME IRR	VALUE-ADD	TVPI	MPME TVPI	MPME TVPI	DPI	MPME DPI	MPME DPI	
1995	35	88.48	18.04	7,044	28.16	6,033	6.07	1.52	1.82	6.07	1.52	1.82	
1996	39	102.93	11.90	9,103	23.96	7,897	5.07	1.36	1.63	5.07	1.36	1.62	
1997	70	92.59	6.30	8,628	13.20	7,939	3.12	1.20	1.34	3.12	1.20	1.33	
1998	79	11.99	2.44	955	0.05	1,194	1.50	1.13	1.00	1.49	1.11	0.99	
1999	103	-0.76	2.78	-354	0.23	-99	0.95	1.20	1.02	0.93	1.15	0.96	
2000	151	0.70	5.83	-513	6.13	-543	1.05	1.54	1.62	1.01	1.39	1.43	
2001	51	2.99	7.26	-427	8.75	-576	1.21	1.62	1.84	1.16	1.51	1.68	
2002	32	-0.57	8.04	-861	9.88	-1,045	0.97	1.78	2.09	0.91	1.51	1.73	
2003	35	9.48	7.34	214	9.08	40	1.79	1.59	1.80	1.67	1.45	1.61	
2004	65	8.30	7.88	42	10.19	-190	1.70	1.72	2.04	1.44	1.38	1.59	
2005	63	7.98	9.52	-155	12.13	-415	1.71	1.91	2.30	1.34	1.49	1.75	
2006	78	8.91	10.19	-128	12.88	-397	1.74	1.93	2.32	1.33	1.40	1.62	
2007	68	15.64	12.10	354	14.81	82	2.31	1.93	2.27	1.60	1.34	1.51	
2008	64	11.59	13.79	-219	16.67	-508	1.80	2.07	2.44	1.18	1.25	1.42	
2009	23	15.12	13.87	125	16.73	-161	2.11	2.01	2.34	1.25	1.16	1.30	
2010	48	26.16	13.80	1,236	16.88	928	3.29	1.92	2.24	1.66	0.98	1.10	
2011	44	19.35	13.52	583	16.82	253	2.41	1.86	2.17	0.81	0.65	0.72	
2012	55	19.24	12.64	660	16.30	294	2.31	1.75	2.04	0.76	0.60	0.68	
2013	59	22.22	12.31	991	15.97	626	2.11	1.52	1.72	0.57	0.44	0.48	
2014	82	18.45	12.81	565	16.45	200	1.79	1.50	1.68	0.26	0.23	0.25	
2015	78	20.18	13.89	629	17.66	252	1.59	1.38	1.50	0.17	0.15	0.16	
2016	76	23.44	14.40	904	18.00	544	1.45	1.26	1.33	0.06	0.06	0.06	
2017	68	25.87	15.71	1,016	18.73	714	1.31	1.18	1.22	0.05	0.04	0.04	
2018	78	8.56	19.30	-1,074	22.56	-1,400	1.06	1.15	1.17	0.01	0.01	0.01	

Notes: Based on data compiled from 1,544 US venture capital funds, including fully liquidated partnerships, formed between 1995 and 2018. Internal rates of returns are net of fees, expenses and carried interest. CA research shows that most funds take at least six years to settle into their final quartile ranking, and previous to this settling they typically rank in 2-3 other quartiles; therefore fund or benchmark performance metrics from more recent vintage years may be less meaningful. Benchmarks with "—" have an insufficient number of funds in the vintage year sample to produce a meaningful return.

mPME Note: Refer to Methodology page for further details on Cambridge Associates Modified PME (mPME).

<sup>&</sup>lt;sup>1</sup>Constructed Index: Data from 1/1/1981 to 10/31/2003 represented by NASDAQ Price Index. Data from 11/1/2003 to present represented by NASDAQ Composite. Sources: Cambridge Associates LLC, Frank Russell Company, and Thomson Reuters Datastream.

AS OF DECEMBER 31, 2019

## TOTAL VALUE TO PAID IN CAPITAL MULTIPLE (TVPI)

VINTAGE YEAR	POOLED RETURN	ARITHMETIC MEAN	MEDIAN	UPPER QUARTILE	LOWER QUARTILE	NUMBER OF FUNDS
1995	6.07	5.18	2.68	4.33	1.87	35
1996	5.07	4.64	2.26	4.61	1.38	39
1997	3.12	2.59	1.39	2.53	0.92	70
1998	1.50	1.59	0.98	1.57	0.62	79
1999	0.95	0.92	0.81	1.30	0.40	103
2000	1.05	1.03	0.91	1.43	0.60	151
2001	1.21	1.30	1.13	1.58	0.79	51
2002	0.97	1.12	0.93	1.43	0.68	32
2003	1.79	1.43	1.13	1.75	0.51	35
2004	1.70	1.73	1.21	1.84	0.85	65
2005	1.71	1.68	1.41	2.12	0.96	63
2006	1.74	1.60	1.59	1.97	0.75	78
2007	2.31	2.41	1.80	2.83	1.33	68
2008	1.80	1.74	1.48	2.21	1.06	64
2009	2.11	2.13	1.80	2.50	1.31	23
2010	3.29	2.85	2.29	3.47	1.44	48
2011	2.41	2.20	2.05	2.69	1.46	44
2012	2.31	2.45	1.85	2.29	1.37	55
2013	2.11	2.04	1.83	2.38	1.41	59
2014	1.79	1.80	1.59	2.08	1.40	82
2015	1.59	1.52	1.46	1.74	1.22	78
2016	1.45	1.42	1.28	1.61	1.15	76
2017	1.31	1.27	1.13	1.31	1.00	68
2018	1.06	0.98	0.95	1.06	0.89	78

AS OF DECEMBER 31, 2019

## DISTRIBUTION TO PAID IN CAPITAL MULTIPLE (DPI)

VINTAGE YEAR	POOLED RETURN	ARITHMETIC MEAN	MEDIAN	UPPER QUARTILE	LOWER QUARTILE	NUMBER OF FUNDS
1995	6.07	5.18	2.68	4.33	1.87	35
1996	5.07	4.63	2.26	4.61	1.38	39
1997	3.12	2.59	1.36	2.53	0.92	70
1998	1.49	1.58	0.98	1.55	0.62	79
1999	0.93	0.90	0.79	1.23	0.36	103
2000	1.01	0.99	0.88	1.41	0.53	151
2001	1.16	1.20	0.99	1.50	0.69	51
2002	0.91	1.03	0.85	1.32	0.64	32
2003	1.67	1.30	0.93	1.51	0.47	35
2004	1.44	1.50	1.03	1.46	0.61	65
2005	1.34	1.29	1.16	1.57	0.67	63
2006	1.33	1.20	1.20	1.65	0.50	78
2007	1.60	1.63	1.32	2.15	0.76	68
2008	1.18	1.10	0.77	1.54	0.46	64
2009	1.25	1.05	0.92	1.31	0.42	23
2010	1.66	1.32	0.77	1.71	0.43	48
2011	0.81	0.59	0.39	0.95	0.21	44
2012	0.76	0.52	0.40	0.76	0.17	55
2013	0.57	0.45	0.27	0.50	0.04	59
2014	0.26	0.21	0.13	0.33	0.03	82
2015	0.17	0.15	0.05	0.22	0.00	78
2016	0.06	0.06	0.00	0.09	0.00	76
2017	0.05	0.04	0.00	0.01	0.00	68
2018	0.01	0.01	0.00	0.00	0.00	78

AS OF DECEMBER 31, 2019

## RESIDUAL VALUE TO PAID IN CAPITAL MULTIPLE (RVPI)

WALL OF VEAR	2001 52 25511211				LOWER CHARTHE	WILLIAM OF THE O
VINTAGE YEAR	POOLED RETURN	ARITHMETIC MEAN	MEDIAN	UPPER QUARTILE	LOWER QUARTILE	NUMBER OF FUNDS
1995	0.00	0.00	0.00	0.00	0.00	35
1996	0.00	0.01	0.00	0.00	0.00	39
1997	0.00	0.00	0.00	0.00	0.00	70
1998	0.01	0.01	0.00	0.00	0.00	79
1999	0.02	0.02	0.00	0.00	0.00	103
2000	0.05	0.04	0.00	0.05	0.00	151
2001	0.05	0.09	0.01	0.07	0.00	51
2002	0.06	0.09	0.01	0.11	0.00	32
2003	0.12	0.12	0.04	0.20	0.01	35
2004	0.26	0.22	0.10	0.27	0.00	65
2005	0.37	0.40	0.26	0.43	0.07	63
2006	0.41	0.40	0.23	0.47	0.10	78
2007	0.71	0.77	0.39	0.99	0.20	68
2008	0.62	0.64	0.59	0.88	0.26	64
2009	0.87	1.08	0.90	1.28	0.55	23
2010	1.63	1.53	1.09	1.75	0.73	48
2011	1.60	1.61	1.29	1.94	0.93	44
2012	1.55	1.92	1.33	1.88	1.00	55
2013	1.54	1.59	1.46	1.88	1.11	59
2014	1.52	1.58	1.49	1.85	1.17	82
2015	1.42	1.38	1.31	1.67	1.07	78
2016	1.38	1.36	1.25	1.56	1.12	76
2017	1.26	1.23	1.09	1.28	0.97	68
2018	1.05	0.97	0.95	1.04	0.88	78

#### SINCE INCEPTION IRR BASED ON FUND CAPITALIZATION

	ALL FUNDS		<=\$50MM		>\$50MM<=\$150M	М	>\$150MM	1
VINTAGE YEAR	POOLED RETURN NUMBE	R OF FUNDS	POOLED RETURN NUMBE	R OF FUNDS	POOLED RETURN NUMBE	R OF FUNDS	POOLED RETURN NUM	BER OF FUNDS
1995	88.48	35	42.41	9	103.32	24	<del>-</del>	2
1996	102.93	39	41.05	8	112.86	16	101.49	15
1997	92.59	70	11.16	20	80.55	33	107.47	17
1998	11.99	79	107.30	15	8.65	33	11.89	31
1999	-0.76	103	-0.07	11	-0.68	27	-0.77	65
2000	0.70	151	-0.80	21	0.41	45	0.75	85
2001	2.99	51	4.22	17	1.57	8	3.02	26
2002	-0.57	32	0.86	10	3.21	12	-1.96	10
2003	9.48	35	-1.83	7	6.55	10	10.06	18
2004	8.30	65	2.47	11	20.56	13	7.15	41
2005	7.98	63	5.77	10	5.09	11	8.18	42
2006	8.91	78	5.51	10	5.18	25	9.41	43
2007	15.64	68	12.01	9	12.73	10	15.82	49
2008	11.59	64	9.44	16	-0.01	11	12.14	37
2009	15.12	23	_	2	8.55	6	15.57	15
2010	26.16	48	14.98	11	13.84	11	27.34	26
2011	19.35	44	16.59	11	7.79	12	20.55	21
2012	19.24	55	24.48	15	19.45	16	18.99	24
2013	22.22	59	15.91	13	15.65	19	23.71	27
2014	18.45	82	13.92	8	21.31	25	18.20	49
2015	20.18	78	20.79	11	19.51	27	20.26	40
2016	23.44	76	13.88	7	22.63	18	23.60	51
2017	25.87	68	14.91	10	27.58	27	25.80	31
2018	8.56	78	2.54	7	10.72	15	8.52	56

#### SINCE INCEPTION IRR BASED ON FUND INITIAL STAGE

	ALL FUNDS		EARLY STAGE		LATE & EXPANSION S	TAGE	MULTI-S	TAGE
VINTAGE YEAR	POOLED RETURN NUMBE	R OF FUNDS	POOLED RETURN NUMB	ER OF FUNDS	POOLED RETURN NUMBE	R OF FUNDS	POOLED RETURN N	UMBER OF FUNDS
1995	88.48	35	102.21	24	33.82	3	17.51	8
1996	102.93	39	133.06	25	44.60	3	47.20	11
1997	92.59	70	118.86	52	106.40	6	16.15	12
1998	11.99	79	17.06	52	6.48	6	4.22	21
1999	-0.76	103	-5.31	64	4.08	19	5.20	20
2000	0.70	151	0.22	106	5.07	17	0.32	28
2001	2.99	51	3.80	28	5.32	3	2.03	20
2002	-0.57	32	-1.20	22	0.00	7	0.38	3
2003	9.48	35	9.78	26	11.12	4	3.06	5
2004	8.30	65	10.62	40	3.63	8	4.90	17
2005	7.98	63	7.40	41	20.41	5	6.59	17
2006	8.91	78	7.74	42	8.85	10	10.05	26
2007	15.64	68	17.58	35	9.46	9	14.81	24
2008	11.59	64	12.23	37	5.46	9	12.78	18
2009	15.12	23	16.42	14	<del>-</del>	0	13.99	9
2010	26.16	48	31.01	27	10.93	8	21.41	13
2011	19.35	44	22.12	30	14.38	5	17.82	9
2012	19.24	55	22.02	39	10.24	5	16.55	11
2013	22.22	59	20.58	39	20.21	8	25.48	12
2014	18.45	82	21.47	53	22.66	15	9.15	14
2015	20.18	78	17.33	48	21.47	13	22.01	17
2016	23.44	76	23.09	51	17.89	12	28.00	13
2017	25.87	68	25.26	49	35.60	7	23.73	12
2018	8.56	78	0.07	46	13.96	14	14.16	18

#### SINCE INCEPTION IRR BASED ON FUND INDUSTRY

	ALL I	UNDS	FOCU	SED	MULTI-IN	DUSTRY
VINTAGE YEAR	POOLED RETURN	NUMBER OF FUNDS	POOLED RETURN	NUMBER OF FUNDS	POOLED RETURN	NUMBER OF FUNDS
1995	88.48	35	102.61	28	29.25	7
1996	102.93	39	99.18	33	132.09	6
1997	92.59	70	96.41	51	82.99	19
1998	11.99	79	15.86	66	-1.17	13
1999	-0.76	103	-0.93	89	1.02	14
2000	0.70	151	0.24	131	4.61	20
2001	2.99	51	2.65	46	7.15	5
2002	-0.57	32	-0.75	26	0.86	6
2003	9.48	35	9.80	32	1.88	3
2004	8.30	65	9.19	58	2.55	7
2005	7.98	63	8.98	50	3.18	13
2006	8.91	78	8.48	65	10.67	13
2007	15.64	68	18.64	51	8.30	17
2008	11.59	64	13.60	45	8.90	19
2009	15.12	23	17.97	17	8.97	6
2010	26.16	48	23.33	36	33.87	12
2011	19.35	44	19.36	34	19.27	10
2012	19.24	55	19.97	41	18.24	14
2013	22.22	59	21.76	52	29.09	7
2014	18.45	82	18.29	65	19.13	17
2015	20.18	78	19.02	62	22.47	16
2016	23.44	76	23.77	68	20.04	8
2017	25.87	68	32.48	52	16.36	16
2018	8.56	78	8.38	62	9.60	16

#### SINCE INCEPTION IRR BASED ON FUND REGION

	ALL FU	NDS	FOC	USED		MULTI-RI	EGION
VINTAGE YEAR	POOLED RETURN	NUMBER OF FUNDS	POOLED RETURN	NUMBER OF FUNDS		POOLED RETURN	NUMBER OF FUNDS
1995	88.48	35	112.06	19		55.38	16
1996	102.93	39	161.38	18	_	36.72	21
1997	92.59	70	155.72	32		43.51	38
1998	11.99	79	24.75	39		3.54	40
1999	-0.76	103	1.08	52		-2.17	51
2000	0.70	151	0.31	69		0.88	82
2001	2.99	51	3.97	21	_	2.32	30
2002	-0.57	32	0.56	14	_	-0.99	18
2003	9.48	35	10.92	20		8.59	15
2004	8.30	65	7.02	27		9.06	38
2005	7.98	63	3.51	22		9.46	41
2006	8.91	78	7.11	34	_	9.91	44
2007	15.64	68	18.80	22		14.63	46
2008	11.59	64	13.39	26		10.91	38
2009	15.12	23	19.71	5		14.00	18
2010	26.16	48	30.39	20		22.32	28
2011	19.35	44	17.91	15		19.83	29
2012	19.24	55	19.31	17		19.20	38
2013	22.22	59	20.16	15		22.83	44
2014	18.45	82	21.70	17	_	17.66	65
2015	20.18	78	19.62	15		20.32	63
2016	23.44	76	26.20	9	_	23.14	67
2017	25.87	68	24.78	8	_	25.97	60
2018	8.56	78	-5.63	12	_	9.17	66

## US VENTURE CAPITAL: COMPANY ANALYSIS





## SINCE INCEPTION IRR BASED ON COMPANY INITIAL INVESTMENT YEAR

By Industry

				POOLE	D GROSS	IRR (%)	OF COMPA	NIESREC	EIVINGIN	IITIAL INV	ESTMENT	ΓIN:							
INDUSTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Chemical/Materials			-19.66	-23.03	-41.72	4.01	-19.03	-3.25	-5.80	-11.02	4.91	106.64	-9.89	39.26		11.49	16.81	4.97	37.89
Consumer/Retail	-0.43	6.51	5.71	7.05	16.24	5.53	-0.08	-14.38	1.82	7.49	12.58	25.80	29.89	22.52	11.91	28.76	25.47	50.02	24.91
Electronics	-7.93	0.48	1.42	-2.39	1.66	-6.48	-3.56	-4.13	6.30	-9.85	28.94	-11.49	17.72	291.56	15.76	17.56	16.01	56.26	12.01
Energy	6.76	-0.70	-9.38	1.63	-9.88	-5.95	-8.04	-1.57	-13.44	-18.83	7.05	-24.36	-15.86	19.97	18.09	-16.19	_	_	-1.41
Environmental	_	_	_	_	_	-63.39	-89.85	-31.86	14.57	n/a	5.40	3.41	-7.10	3.46	_	-0.54	40.79	33.38	9.55
Financial Services	12.97	25.33	28.54	15.04	24.17	9.24	15.02	16.11	-0.45	33.61	23.95	22.47	25.59	17.54	4.56	40.51	46.60	73.51	46.79
Hardware/Systems	-50.83	7.94	-12.01	-2.27	16.58	-27.10	-12.34	40.91	3.14	47.06	32.97	26.97	-13.27	-5.24	11.10	61.29	25.43	41.89	46.04
Health Care/Biotech*	2.74	9.04	7.48	12.97	7.76	10.85	6.20	14.38	13.72	18.91	22.99	26.20	41.48	58.04	35.28	34.97	30.33	36.14	52.81
Industrial	_	_	_	50.58	65.38	-13.94	6.89	9.77	3.21	_	3.36	102.32	27.27	47.22	18.54	12.59	37.08	64.96	50.02
Information Technology*	-3.11	0.02	8.78	16.09	17.36	25.43	18.04	16.68	22.33	38.74	23.25	16.68	20.46	22.75	28.82	29.33	45.86	34.58	41.79
Manufacturing	-0.08	20.19	-8.77	19.10	-1.30	-8.62	25.48	2.02	19.98	25.74	-5.24	23.05	9.21	5.35	27.28	24.38	25.16	16.65	21.40
Media/Communications	-0.42	2.79	-3.26	9.77	-0.41	10.46	-8.25	9.53	23.08	20.83	18.44	22.46	7.07	29.20	7.81	13.39	20.70	3.60	23.91
Software/Services	-5.78	4.78	16.25	9.89	18.60	5.78	13.18	13.60	22.59	43.54	29.89	21.99	27.88	27.94	31.73	22.73	42.44	36.13	49.36
Other/Fund of Funds	-8.78	3.12	-5.72	19.74	5.13	7.76	2.46	9.12	7.47	28.66	12.53	25.08	26.99	21.53	57.29	37.68	51.32	28.51	22.89
ALL COMPANIES	-2.71	4.75	8.87	10.29	12.47	11.74	8.36	12.89	16.01	27.35	22.67	24.51	26.20	33.97	29.37	28.80	38.24	37.89	44.76
NUMBER OF COMPANIES	2,906	1,384	1,232	1,214	1,459	1,368	1,586	1,693	1,513	968	1,301	1,637	1,464	1,521	1,688	1,836	1,450	1,678	1,995

#### SINCE INCEPTION IRR BASED ON COMPANY INITIAL INVESTMENT YEAR

By Health Care/Biotech and Information Technology Subgroups

NUMBER OF COMPANIES	2,906	1,384	1,232	1,214	1,459	1,368	1,586	1,693	1,513	968	1,301	1,637	1,464	1,521	1,688	1,836	1,450	1,678	1,995
ALL COMPANIES	-2.71	4.75	8.87	10.29	12.47	11.74	8.36	12.89	16.01	27.35	22.67	24.51	26.20	33.97	29.37	28.80	38.24	37.89	44.76
Telecom Services	-3.32	3.88	10.84	9.45	2.80	-2.43	3.22	12.83	-10.12	-47.49	6.19	-17.21	15.59	5.87	_	18.17	_	5.10	3.10
Telecom Products	-9.64	-7.32	-14.36	14.99	-4.47	-12.64	-13.63	-14.35	-14.51	41.07	48.72	-2.71	-1.77	-36.97	_	42.27	_	_	n/a
Telecom Network/Systems	-9.97	-0.45	14.58	2.01	7.82	5.41	-5.08	22.61	15.54	19.18	-2.68	2.65	7.64	29.47	211.68	_	0.72	9.36	-30.56
Internet e-Commerce	5.93	15.51	4.75	42.99	24.43	50.03	30.42	19.09	38.35	49.52	19.38	14.19	16.03	19.21	15.51	28.46	40.79	32.88	34.02
Internet e-Business	-0.73	5.54	25.45	30.27	39.85	15.97	18.94	15.80	18.17	32.88	26.91	21.46	25.43	25.49	33.69	29.93	51.21	38.01	52.02
Pharmaceuticals	14.58	21.33	30.55	18.55	12.38	4.17	5.11	21.62	8.74	25.56	25.66	16.08	63.30	23.03	35.58	18.50	44.86	46.07	56.98
Health Care Software/Systems	0.01	4.98	8.15	-11.02	11.48	7.99	13.58	18.00	49.17	8.06	15.70	29.76	9.56	10.10	28.68	25.79	19.20	27.06	26.61
Health Care Services	8.20	14.35	15.28	23.50	20.85	11.94	6.15	17.47	7.04	24.56	8.06	25.40	29.54	34.07	33.55	19.80	24.63	25.07	15.10
Health Care Devices	4.20	0.07	0.15	1.84	2.69	9.44	2.91	3.46	5.29	0.02	9.84	13.68	7.19	0.15	6.82	28.19	26.33	9.08	6.32
Biotechnology/Biopharm/R&D	-1.87	8.72	4.84	19.53	6.69	14.27	8.07	17.29	12.18	26.50	29.61	35.82	59.69	94.99	44.71	43.74	31.69	41.53	68.46
SUBGROUP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
				POOLE	D GROSS	IRR (%)	OF COMPA	NIESREC	EIVINGIN	IITIAL INV	ESTMENT	IN:							

#### AS OF DECEMBER 31, 2019 **US VENTURE CAPITAL**

#### SINCE INCEPTION IRR BASED ON COMPANY INITIAL INVESTMENT YEAR

By GICS Sector

				POOLE	D GROSS	IRR (%)	OF COMPA	ANIES REC	EIVINGIN	IITIAL INV	ESTMENT	IN:							
INDUSTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Communication Services	-3.13	5.88	2.69	14.85	14.08	32.45	12.76	21.89	22.55	44.83	12.06	16.26	13.88	20.29	18.95	13.64	22.99	27.56	54.70
Consumer Discretionary	13.81	17.86	32.87	28.06	21.66	16.70	12.92	-3.07	29.34	26.17	25.03	17.53	24.48	137.78	29.66	27.56	29.88	32.11	28.01
Consumer Staples	1.89	-22.33	-10.85	_	1.90	2.09	-10.36	1.95	-11.64	3.57	-4.47	8.22	37.75	4.66	19.48	17.52	45.63	72.67	65.79
Energy	20.44	6.58	_	31.43	3.28	-22.78	-7.11	-15.28	-15.16	-75.78	-2.02	-6.64	-15.68	-6.57				_	
Financials	9.15	26.98	13.86	7.33	48.19	7.46	7.68	10.70	-2.58	30.18	21.68	32.14	22.31	21.76	13.25	43.94	39.88	51.44	56.46
Health Care*	3.51	9.13	5.82	13.95	8.29	10.47	6.40	14.68	14.04	20.06	24.03	26.30	40.46	57.34	34.73	34.70	30.89	34.64	49.88
Industrials	0.52	-16.99	-0.01	22.64	17.66	8.89	-3.83	-1.22	10.43	14.38	2.48	50.78	21.38	21.59	20.24	21.47	30.40	34.17	18.77
Information Technology*	-6.39	2.29	11.60	6.26	12.09	2.05	10.60	11.05	16.48	32.51	28.28	20.09	23.39	25.45	31.11	26.92	47.47	39.92	45.08
Materials	-16.88	26.37	_	62.51	_	19.02	-17.40	-6.47	-5.72	-16.67	-10.27	44.39	-2.45	36.58	32.15	11.49	17.18	44.04	37.89
Real Estate	-23.03	_	_	195.16	_	15.89	_	_		_	_	_	62.70	28.44	6.71	26.01	32.00	45.97	8.76
Utilities	_	_	_	_	_	4.76	15.41	-63.64	2.14	4.17	3.49	-17.56	-14.30	_	_	_	_	_	-2.91
Other/Fund of Funds	-7.24	3.21	-4.31	8.66	-2.29	9.94	6.21	6.87	9.73	29.85	17.88	22.78	22.96	24.95	42.67	40.75	39.77	42.72	63.40
ALL COMPANIES	-2.71	4.75	8.87	10.29	12.47	11.74	8.36	12.89	16.01	27.35	22.67	24.51	26.20	33.97	29.37	28.80	38.24	37.89	44.76
NUMBER OF COMPANIES	2,906	1,384	1,232	1,214	1,459	1,368	1,586	1,693	1,513	968	1,301	1,637	1,464	1,521	1,688	1,836	1,450	1,678	1,995

## SINCE INCEPTION IRR BASED ON COMPANY INITIAL INVESTMENT YEAR

By Health Care and Information Technology GICS Industry Groups

				POOLE	D GROSS	IRR (%) (	OF COMPA	NIESREC	EIVINGIN	IITIAL INV	ESTMENT	IN:							
SUBGROUP	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Health Care Equipment & Services	4.11	2.21	2.66	5.63	7.58	8.51	4.59	5.73	15.26	6.45	16.54	21.99	17.47	12.24	22.41	23.96	25.72	21.56	21.79
Pharmaceuticals, Biotechnology & Life Sciences	2.76	12.34	8.19	19.08	8.74	12.32	8.05	18.95	12.57	29.11	29.77	30.21	66.33	89.26	43.73	38.66	33.62	39.95	61.61
Semiconductors & Semiconductor Equipment	-4.51	-0.60	7.22	0.33	-2.72	-3.60	-6.34	2.85	-17.15	-5.13	9.27	-4.28	-25.53	47.30	18.26	_	92.58	64.37	29.28
Software & Services	-4.87	2.97	14.37	8.30	17.10	6.61	15.31	12.99	21.40	35.24	28.93	19.92	24.78	25.47	31.82	26.84	48.95	39.81	47.43
Technology Hardware & Equipment	-10.34	2.45	7.24	5.66	6.23	-14.14	-3.37	9.07	3.62	27.58	31.32	28.51	5.21	24.46	17.01	28.05	19.68	36.17	16.95
ALL COMPANIES	-2.71	4.75	8.87	10.29	12.47	11.74	8.36	12.89	16.01	27.35	22.67	24.51	26.20	33.97	29.37	28.80	38.24	37.89	44.76
NUMBER OF COMPANIES	2,906	1,384	1,232	1,214	1,459	1,368	1,586	1,693	1,513	968	1,301	1,637	1,464	1,521	1,688	1,836	1,450	1,678	1,995

## DESCRIPTION OF PERFORMANCE MEASUREMENT METHODOLOGY

AS OF DECEMBER 31, 2019

Cambridge Associates LLC (CA) has established a database to monitor investments made by venture capital and other alternative asset partnerships. On December 31, 2019, 1,942 US venture capital funds from the years 1981 through 2019 were included in the sample. Users of the analysis may find the following description of the data sources and calculation techniques helpful to their interpretation of information presented in the report:

Partnership financial statements and narratives are the primary source of information concerning cash flows and ending residual/ net asset values (NAV) for both partnerships and portfolio company investments.

Recognizing the alternative asset community's sensitivity to the distribution of information pertaining to individual fund investments, as a matter of policy CA only releases aggregated figures in its benchmark report.

Vintage year is defined as the legal inception date as noted in a fund's financial statement. This date can usually be found in the first note to the audited financial statements and is prior to the first close or capital call.

CA uses both the since inception internal rate of return and the end-to-end or horizon performance calculation in its benchmark reports:

The since inception internal rate of return (SIRR) is a since inception calculation that solves for the discount rate, which makes the net present value of an investment equal to zero. The calculation is based on cash-on-cash returns over equal periods modified for the residual value of the partnership's equity or portfolio company's NAV. The residual value attributed to each respective group being measured is incorporated as its ending value. Transactions are accounted for on a quarterly basis, and annualized values are used for reporting purposes. Please note that all transactions are recorded on the 45th day or midpoint of the quarter.

Cambridge Associates uses the end-to-end or horizon internal rate of return calculation to calculate the official quarterly, annual, and multi-year index figures. The horizon IRR performance calculation is a money-weighted return similar to the since inception IRR; however, it is measuring performance between two points in time. The calculation incorporates the beginning NAV (if any, treated as an inflow), interim cash flows and the ending NAV (if any, treated as an outflow). All interim cash flows are recorded on the mid-period date of the quarter. In order for a fund to be included in a horizon IRR calculation, the fund must have at least one quarterly contribution, distribution or NAV during the time frame being measured. Similar to the since inception IRR, the horizon IRR is annualized for time frames greater than one year.

## DESCRIPTION OF PERFORMANCE MEASUREMENT METHODOLOGY

AS OF DECEMBER 31, 2019

#### Additional Calculation Definitions:

In order to provide meaningful statistics, Cambridge Associates has applied minimum fund count thresholds for each calculation. See minimum counts in parenthesis after each calculation.

Pooled return aggregates all cash flows and ending NAVs in a sample to calculate a dollar-weighted return. (minimum 3 funds)

**Arithmetic mean** averages the individual fund IRRs included in a vintage year. (minimum 3 funds)

Median is the middle fund IRR of the group of individual fund IRRs included in a vintage year. (minimum 5 funds)

**Equal-weighted pooled return** equally weights all cash flows and ending NAVs based on committed capital to calculate a dollar-weighted return. (minimum 3 funds)

**Upper/ lower quartile** are the thresholds for the upper (top 25%) and lower (bottom 25%) quartiles based on the individual fund IRRs included in a vintage year. Can be used in conjunction with the median to determine quartile placement. (minimum 8 funds)

**Top 5 percent/ bottom 5 percent** are the thresholds for the upper and lower 5<sup>th</sup> percentiles based on the individual fund IRRs included in a vintage year. (minimum 8 funds)

**Standard deviation** is a measure of the dispersion of the individual returns. The calculation employs the standard methodology for calculating a sample mean (not a population mean). (minimum 8 funds)

Realization ratio exhibits (TVPI, DPI, RVPI): CA has independently calculated the proper realization ratio for each fund in each vintage year. Please note that each fund has been ranked within its respective vintage year by the corresponding realization ratio, as opposed to being ranked by IRR as they are ranked in the since inception IRR exhibit. As a result a fund's ranking within its vintage year may change. For example, it is possible that a vintage year can have a different median fund when ranked by IRR vs. when ranked by TVPI, DPI or RVPI.

Cambridge Associates Modified Public Market Equivalent (mPME): The mPME calculation is a private-to-public comparison that seeks to replicate private investment performance under public market conditions. The public index's shares are purchased and sold according to the private fund cash flow schedule, with distributions calculated in the same proportion as the private fund, and the mPME NAV (the value of the shares held by the public equivalent) is a function of mPME cash flows and public index returns. The mPME attempts to evaluate what return would have been earned had the dollars been deployed in the public markets instead of in private investments while avoiding the "negative NAV" issue inherent in some PME methodologies. "Value-Add" shows (in basis points) the difference between the actual private investment return and the mPME calculated return.

Exhibits detailing data for portfolio companies are grouped by year of the fund's initial investment in a company, as opposed to vintage year. Returns are gross returns.



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