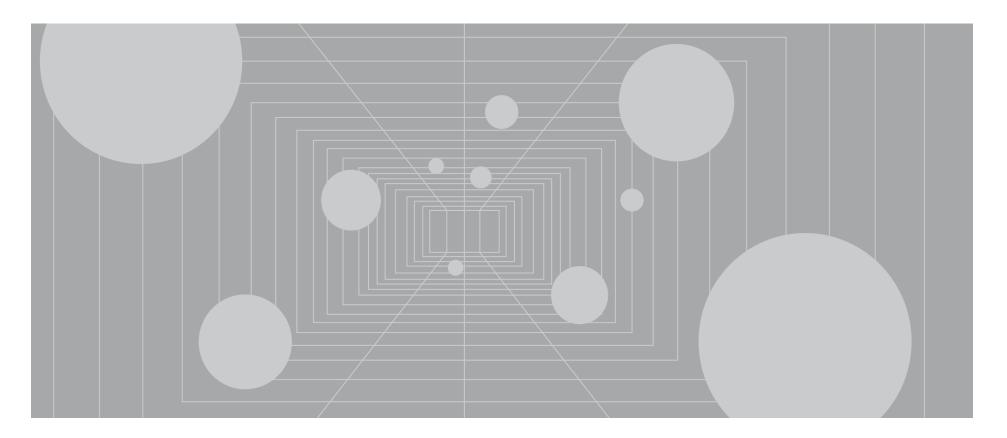
## INDEX AND BENCHMARK STATISTICS





JUNE 30, 2019

## DISCLAIMER

AS OF JUNE 30, 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 JUNE 30, 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 2,000 fund managers and their over 7,700 funds. In addition, we capture the performance information (gross) of over 78,000 investments underlying our venture capital, growth equity, buyout, subordinated capital and private equity energy funds. This is one of the largest collections of portfolio-level performance information in the world and represents the investments of approximately 78% of these funds on a count basis and 84% 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 data consistent 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.

## TIMING OF FINAL BENCHMARKS AND DATA EVOLUTION

AS OF JUNE 30, 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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## **CRITERIA FOR INCLUSION**

AS OF JUNE 30, 2019

Impact investments are defined by their intent to generate a social and/or environmental return in addition to a financial return. The focus of this benchmark is private funds with a social impact objective to allow for a clear aggregation of similarly motivated funds.

A unique feature of impact investments is that not all investment opportunities aim for market rates of risk-adjusted return. However, in the interest of focusing on a relatively uniform set of data, this benchmark restricts itself to those funds that target risk-adjusted market-rate returns.

The Cambridge Associates research team, in partnership with the Global Impact Investing Network (GIIN) research team, identified a list of relevant impact investing funds through existing databases maintained by various credible networks worldwide, including the GIIN's ImpactBase, CA's Mission-Related Investing (MRI) database, the Community Development Venture Capital Alliance (CDVCA), the European Venture Philanthropy Association (EVPA), ImpactAssets 50, and Opportunity Finance Network (OFN). This list was further refined based on the criteria in the table below:

	INCLUDED	EXCLUDED			
FUND TYPE	Private, closed-ended funds available	Public funds			
	to institutional investors	Open-ended funds			
	Private Equity: Growth	Private Equity: Buyout			
ASSET CLASS/STRATEGY	Private Equity: Subordinated Capital	Fixed Income			
	Venture Capital	Real Assets			
	Intent to generate appial impact	Intent to generate environmental impact only			
IMPACT INTENT	Intent to generate social impact	ESG / negative screening			
TARGET RETURNS	"Market rate": target 15%+ net IRR for growth and venture; 10%+ for subordinated	Below-market funds: target concessionary returns that are lower than our market rate			
	capital	expectations			

77 qualifying funds had submitted their data for benchmark inclusion as of June 30, 2019. Funds are continually added to this benchmark each quarter.

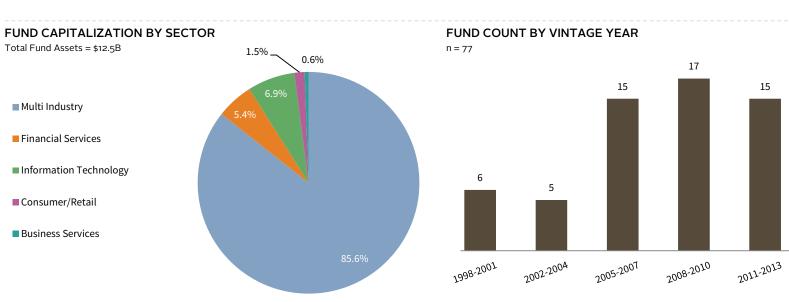
Given the limited size of the sample and the overall youth of the funds within the PE/VC Impact Investing Benchmark, it is difficult to draw definitive conclusions on the performance of impact investing funds. Like the impact investing industry, the PE/VC Impact Investing Benchmark dataset is young and dynamic—its performance will evolve from quarter to quarter, as with any benchmark, with the addition of new funds and the maturation of existing ones. We will monitor the industry by updating this benchmark on a quarterly basis.

### **DISTRIBUTION OF FUNDS**

#### AS OF JUNE 30, 2019

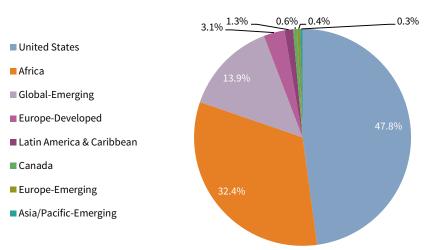
19

2014-2018

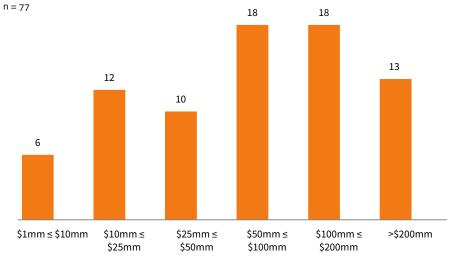


FUND CAPITALIZATION BY GEOGRAPHY

Total Fund Assets = \$12.5B



#### FUND COUNT BY SIZE



## PE/VC IMPACT INVESTING: FUND INDEX ANALYSIS





## ALL MARKETS

#### AS OF JUNE 30, 2019

#### FUND INDEX SUMMARY: HORIZON POOLED RETURN

Net to Limited Partners

C

INDEX	1-QUARTER	YTD	1-YEAR	3-YEAR	5-YEAR	10-YEAR	15-YEAR
CAMBRIDGE ASSOCIATES LLC PE/VC IMPACT INVESTING INDEX <sup>1</sup>	3.19	5.23	8.97	9.25	5.87	7.09	7.56
Bloomberg Barclays Capital Government/Credit Bond Index	3.53	6.90	8.52	2.41	3.11	4.09	4.33
MSCI World ex US Index (net)	3.79	14.64	1.29	9.01	2.04	6.75	5.44
MSCI World Index (net)	4.00	16.98	6.33	11.77	6.60	10.72	7.03
MSCI Emerging Markets Index (gross)	0.74	10.76	1.61	11.06	2.87	6.17	9.06
Russell 1000® Index	4.25	18.84	10.02	14.15	10.45	14.77	8.94
Russell 2000® Index	2.10	16.98	-3.31	12.30	7.06	13.45	8.15
S&P 500 Index	4.30	18.54	10.42	14.19	10.71	14.70	8.75

The index is a horizon calculation based on data compiled from 77 private equity & venture capital funds, including fully liquidated partnerships, formed between 1998 and 2018. <sup>1</sup> 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. Sources: Cambridge Associates LLC, Bloomberg Barclays, Frank Russell Company, MSCI, Inc., Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties. Total returns for MSCI Emerging Markets Indices are gross of dividend taxes. Total Returns for MSCI Developed Markets Indices are net of dividend taxes.

## ALL MARKETS

AS OF JUNE 30, 2019

#### FUND INDEX DETAILS: ONE QUARTER HORIZON POOLED RETURN

Net to Limited Partners

QUARTER ENDING	HORIZON RETURN	QUARTER ENDING	HORIZON RETURN	QUARTER ENDING	HORIZON RETURN		QUARTER ENDING	
1999 Q2	_	2004 Q3	11.95	2009 Q4	-0.95		2015 Q1	
1999 Q3		2004 Q4	26.38	2010 Q1	-1.85	-	2015 Q2	
1999 Q4	_	2005 Q1	25.03	2010 Q2	-3.34		2015 Q3	
2000 Q1	_	2005 Q2	-0.07	2010 Q3	8.28		2015 Q4	
2000 Q2	-13.22	2005 Q3	2.75	2010 Q4	1.30		2016 Q1	
2000 Q3	-6.19	2005 Q4	-20.89	2011 Q1	-2.37	-	2016 Q2	
2000 Q4	-5.14	2006 Q1	0.69	2011 Q2	2.01		2016 Q3	
2001 Q1	-4.79	2006 Q2	1.16	2011 Q3	-5.52		2016 Q4	
2001 Q2	-4.00	2006 Q3	8.14	2011 Q4	6.75	-	2017 Q1	
2001 Q3	-3.84	2006 Q4	24.89	2012 Q1	1.25		2017 Q2	
2001 Q4	6.85	2007 Q1	3.33	2012 Q2	0.37		2017 Q3	
2002 Q1	-2.80	2007 Q2	11.71	2012 Q3	2.81		2017 Q4	
2002 Q2	-3.98	2007 Q3	2.38	2012 Q4	5.23		2018 Q1	
2002 Q3	-2.35	2007 Q4	10.92	2013 Q1	0.93		2018 Q2	
2002 Q4	2.07	2008 Q1	7.49	2013 Q2	4.80		2018 Q3	
2003 Q1	-2.72	2008 Q2	-2.09	2013 Q3	3.78		2018 Q4	
2003 Q2	-2.29	2008 Q3	-10.96	2013 Q4	7.47		2019 Q1	
2003 Q3	-6.79	2008 Q4	-6.70	2014 Q1	1.73	-	2019 Q2	
2003 Q4	4.61	2009 Q1	-3.99	2014 Q2	3.30			
2004 Q1	-4.56	2009 Q2	3.19	2014 Q3	-0.28			
2004 Q2	25.39	2009 Q3	3.58	2014 Q4	0.18			

CA

The index is a horizon calculation based on data compiled from 77 private equity & venture capital funds, including fully liquidated partnerships, formed between 1998 and 2018. All returns are net of fees, expenses, and carried interest.

#### AS OF JUNE 30, 2019

## ALL MARKETS

#### FUND INDEX DETAILS: HORIZON POOLED RETURN

Net to Limited Partners

	MULTI-YEAR RETURNS
YEARS	HORIZON RETURN (%)
1 Year	8.97
2 Years	8.88
3 Years	9.25
4 Years	7.01
5 Years	5.87
6 Years	7.29
7 Years	8.05
8 Years	7.59
9 Years	7.66
10 Years	7.09
11 Years	6.04
12 Years	6.39
13 Years	7.03
14 Years	6.57
15 Years	7.56
16 Years	7.69
17 Years	7.59

ONE YEAR ROLLING RETURNS							
ONE YEAR ENDED	HORIZON RETURN (%)						
6/30/2019	8.97						
6/30/2018	8.79						
6/30/2017	10.10						
6/30/2016	-0.66						
6/30/2015	0.33						
6/30/2014	17.11						
6/30/2013	14.47						
6/30/2012	2.78						
6/30/2011	8.65						
6/30/2010	-3.34						
6/30/2009	-16.20						
6/30/2008	18.59						
6/30/2007	54.14						
6/30/2006	-17.74						
6/30/2005	78.84						
6/30/2004	20.57						
6/30/2003	-5.44						

## **DEVELOPED MARKETS**

#### AS OF JUNE 30, 2019

#### FUND INDEX DETAILS: ONE QUARTER HORIZON POOLED RETURN

Net to Limited Partners

NORTCOM ENDING     QUARTER ENDING     NORTCOM REFURN     QUARTER ENDING     NORTCOM ENDING     QUARTER ENDING     QUARTER ENDING       999 Q2     -     2004 Q3     -10.10     2009 Q4     3.54     2015 Q1       999 Q3     -     2004 Q4     -1.15     2010 Q1     -2.05     2015 Q2       999 Q4     -     2005 Q1     -4.70     2010 Q3     4.92     2015 Q4       900 Q2     -     2005 Q2     -0.29     2010 Q3     4.92     2015 Q4       900 Q4     -     2005 Q3     26.40     2011 Q1     -0.40     2016 Q2       900 Q4     -     2006 Q1     0.66     2011 Q1     -0.40     2016 Q2       900 Q2     -     2006 Q2     -4.80     2011 Q3     -1.74     2016 Q4       900 Q2     -     2006 Q2     -4.80     2011 Q2     -5.99     2017 Q2       900 Q2     -     2007 Q1     13.02     2012 Q2     -0.89     2017 Q3       900 Q2     -     -     2007 Q2     -3.21     2012 Q1 Q <td< th=""><th></th><th></th><th></th><th></th><th></th></td<>					
1999 Q3   -   2004 Q4   -1.15   2010 Q1   -2.05     1999 Q4   -   2005 Q1   -4.70   2010 Q2   5.24   2015 Q4     1000 Q1   -   2005 Q2   -0.29   2010 Q3   4.92   2015 Q4     1000 Q2   -   2005 Q2   0.29   2010 Q4   5.88   2016 Q1     1000 Q3   -   2005 Q4   0.66   2011 Q1   -0.40   2016 Q2     1000 Q4   -   2006 Q1   -0.60   2011 Q2   7.82   2016 Q3     1001 Q2   -   2006 Q2   -4.80   2011 Q1   -0.40   2016 Q3     1001 Q2   -   2006 Q2   -4.80   2011 Q2   7.82   2016 Q3     1001 Q3   -   2006 Q3   26.11   2011 Q4   8.82   2017 Q1     1001 Q4   -   2007 Q2   -3.21   2012 Q1   -5.09   2017 Q2     1001 Q4   -   2007 Q2   -3.21   2012 Q1   -5.09   2017 Q2     1001 Q4   -   2007 Q2   -3.21   2012 Q2   -0.89   2017 Q3     1002 Q					
999 Q4   -   2005 Q1   -4.70   2010 Q2   5.24   2015 Q3     000 Q1   -   2005 Q2   -0.29   2010 Q3   4.92   2015 Q4     000 Q2   -   2005 Q3   26.40   2010 Q4   5.88   2016 Q1     000 Q4   -   2006 Q2   -4.80   2011 Q1   -0.40   2016 Q3     001 Q2   -   2006 Q2   -4.80   2011 Q2   7.82   2016 Q3     001 Q1   -   2006 Q2   -4.80   2011 Q1   -0.40   2016 Q3     001 Q2   -   2006 Q2   -4.80   2011 Q2   7.82   2016 Q3     001 Q2   -   2006 Q2   -4.80   2011 Q1   -5.09   2017 Q1     001 Q3   -   2007 Q1   13.02   2012 Q2   -0.89   2017 Q3     001 Q4   -   2007 Q2   -3.21   2012 Q3   0.24   2017 Q4     002 Q2   -13.17   2007 Q3   5.74   2012 Q2   -0.89   2018 Q3     002 Q2   -13.17   2008 Q2   -1.45   2013 Q3   1.26   2018 Q3	2009 Q4	24	3.54	20	15 Q1
2000 Q1      2005 Q2     -0.29     2010 Q3     4.92     2015 Q4       2000 Q2      2005 Q3     26.40     2010 Q4     5.88     2016 Q1       2000 Q3      2005 Q4     0.66     2011 Q1     -0.40     2016 Q3       2001 Q4      2006 Q1     -0.60     2011 Q2     7.82     2016 Q3       2001 Q1      2006 Q2     -4.80     2011 Q3     -1.74     2016 Q4       2001 Q2      2006 Q3     26.11     2011 Q4     8.82     2017 Q1       2001 Q4      2006 Q4     8.79     2012 Q1     -5.09     2017 Q2       2001 Q4      2007 Q1     13.02     2012 Q2     -0.89     2017 Q3       2002 Q2     -13.17     2007 Q3     5.74     2012 Q4     6.03     2018 Q4       2002 Q2     -13.17     2007 Q2     -1.45     2013 Q2     15.90     2018 Q4       2003 Q1     -6.71     2008 Q2     -1.45     2013 Q4     12.59     2019 Q1 <t< td=""><td>2010 Q1</td><td>21</td><td>-2.05</td><td>20</td><td>15 Q2</td></t<>	2010 Q1	21	-2.05	20	15 Q2
2000 Q2    2005 Q3   26.40   2010 Q4   5.88   2016 Q1     2000 Q3    2005 Q4   0.66   2011 Q1   -0.40   2016 Q3     2000 Q4    2006 Q1   -0.60   2011 Q2   7.82   2016 Q4     2001 Q1    2006 Q2   -4.80   2011 Q3   -1.74   2016 Q4     2001 Q2    2006 Q3   26.11   2011 Q4   8.82   2017 Q1     2001 Q3    2006 Q3   26.11   2012 Q2   -0.89   2017 Q2     2001 Q4    2007 Q1   13.02   2012 Q2   -0.89   2017 Q3     2002 Q2   -13.17   2007 Q3   5.74   2012 Q2   -0.89   2018 Q1     2002 Q2   -13.17   2008 Q1   -0.66   2013 Q2   1.590   2018 Q3     2003 Q2   -1.17   2008 Q2   -1.45   2013 Q3   1.26   2018 Q1     2003 Q2   -1.17   2008 Q3   -9.25   2013 Q4   1.259   2019 Q1     2003 Q2   -1.17   2008 Q2   -1.21   2014 Q1   1.36	2010 Q2	22	5.24	20	15 Q3
2000 Q3    2005 Q4   0.66   2011 Q1   -0.40   2016 Q2     2000 Q4    2006 Q1   -0.60   2011 Q2   7.82   2016 Q3     2001 Q1    2006 Q2   -4.80   2011 Q3   -1.74   2016 Q4     2001 Q2    2006 Q3   26.11   2011 Q4   8.82   2017 Q1     2001 Q3    2007 Q1   13.02   2012 Q2   -0.89   2017 Q3     2002 Q1    2007 Q2   -3.21   2012 Q3   0.24   2018 Q1     2002 Q2   -13.17   2007 Q3   5.74   2013 Q1   -3.81   2018 Q2     2002 Q3   -4.80   2007 Q4   2.11   2013 Q2   15.90   2018 Q3     2002 Q4   -3.83   2008 Q1   -0.06   2013 Q2   15.90   2018 Q3     2003 Q2   -1.17   2008 Q3   -9.25   2013 Q4   12.59   2019 Q1     2003 Q3   -9.57   2008 Q4   -8.41   2014 Q1   1.36   2019 Q2     2003 Q4   -6.64   2009 Q2   -2.11   2014 Q3   0.12	2010 Q3	23	4.92	20	15 Q4
2000 Q4   -   2006 Q1   -0.60   2011 Q2   7.82   2016 Q3     2001 Q1   -   2006 Q2   -4.80   2011 Q3   -1.74   2016 Q4     2001 Q2   -   2006 Q3   26.11   2011 Q4   8.82   2017 Q1     2001 Q3   -   2006 Q4   8.79   2012 Q1   -5.09   2017 Q2     2001 Q4   -   2007 Q1   13.02   2012 Q2   -0.89   2017 Q3     2002 Q1   -   2007 Q2   -3.21   2012 Q4   6.03   2018 Q1     2002 Q2   -13.17   2008 Q1   -0.06   2013 Q2   15.90   2018 Q1     2002 Q4   -3.83   2008 Q1   -0.06   2013 Q2   15.90   2018 Q3     2003 Q4   -6.71   2008 Q2   -1.45   2013 Q3   1.26   2018 Q4     2003 Q2   -1.17   2008 Q4   -8.41   2014 Q1   1.36   2019 Q1     2003 Q4   -6.64   2009 Q1   -2.71   2014 Q2   1.91   2019 Q1     2004 Q1   -1.28   2009 Q2   1.21   2014 Q3   0.12   2	2010 Q4	24	5.88	20	16 Q1
2001 Q1   -   2006 Q2   -4.80   2011 Q3   -1.74   2016 Q4     2001 Q2   -   2006 Q3   26.11   2011 Q4   8.82   2017 Q1     2001 Q3   -   2006 Q4   8.79   2012 Q1   -5.09   2017 Q2     2001 Q4   -   2007 Q1   13.02   2012 Q2   -0.89   2017 Q3     2002 Q1   -   2007 Q2   -3.21   2012 Q3   0.24   2018 Q1     2002 Q2   -13.17   2007 Q3   5.74   2013 Q1   -3.81   2018 Q2     2002 Q4   -3.83   2008 Q1   -0.06   2013 Q2   15.90   2018 Q3     2003 Q2   -1.17   2008 Q3   -9.25   2013 Q4   12.59   2019 Q1     2003 Q4   -6.64   2009 Q1   -2.71   2014 Q2   1.91   2019 Q2     2004 Q1   -12.84   2009 Q2   1.21   2014 Q3   0.12   2019 Q1	2011 Q1	21	-0.40	20	16 Q2
2001 Q2-2006 Q326.112011 Q48.822017 Q12001 Q3-2006 Q48.792012 Q1-5.092017 Q22001 Q4-2007 Q113.022012 Q2-0.892017 Q32002 Q1-2007 Q2-3.212012 Q30.242017 Q42002 Q2-13.172007 Q35.742012 Q46.032018 Q12002 Q4-3.832008 Q1-0.062013 Q215.902018 Q32003 Q1-6.712008 Q2-1.452013 Q31.262018 Q42003 Q2-1.172008 Q3-9.252013 Q412.592019 Q12003 Q4-6.642009 Q1-2.712014 Q21.912014 Q21.912004 Q1-12.842009 Q21.212014 Q30.122014 Q30.12	2011 Q2	22	7.82	20	16 Q3
2001 Q3-2006 Q48.792012 Q1-5.092017 Q22001 Q4-2007 Q113.022012 Q2-0.892017 Q32002 Q12007 Q2-3.212012 Q30.242017 Q42002 Q2-13.172007 Q35.742012 Q46.032018 Q12002 Q3-4.802007 Q42.112013 Q1-3.812018 Q22002 Q4-3.832008 Q1-0.062013 Q215.902018 Q42003 Q1-6.712008 Q2-1.452013 Q31.262018 Q42003 Q2-1.172008 Q3-9.252013 Q412.592019 Q12003 Q46.642009 Q1-2.712014 Q21.912019 Q22004 Q1-12.842009 Q21.212014 Q30.121.12	2011 Q3	23	-1.74	20	16 Q4
2001 Q4 $ 2007 Q1$ $13.02$ $2012 Q2$ $-0.89$ $2017 Q3$ $2002 Q1$ $ 2007 Q2$ $-3.21$ $2012 Q3$ $0.24$ $2017 Q4$ $2002 Q2$ $-13.17$ $2007 Q3$ $5.74$ $2012 Q4$ $6.03$ $2018 Q1$ $2002 Q3$ $-4.80$ $2007 Q4$ $2.11$ $2013 Q1$ $-3.81$ $2018 Q2$ $2002 Q4$ $-3.83$ $2008 Q1$ $-0.06$ $2013 Q2$ $15.90$ $2018 Q3$ $2003 Q1$ $-6.71$ $2008 Q2$ $-1.45$ $2013 Q3$ $1.26$ $2018 Q4$ $2003 Q2$ $-1.17$ $2008 Q3$ $-9.25$ $2013 Q4$ $12.59$ $2019 Q1$ $2003 Q4$ $6.64$ $2009 Q1$ $-2.71$ $2014 Q2$ $1.91$ $2014 Q2$ $1.91$ $2004 Q1$ $-12.84$ $2009 Q2$ $1.21$ $2014 Q3$ $0.12$ $0.12$	2011 Q4	24	8.82	20	17 Q1
2002 Q1   -   2007 Q2   -3.21   2012 Q3   0.24   2017 Q4     2002 Q2   -13.17   2007 Q3   5.74   2012 Q4   6.03   2018 Q1     2002 Q3   -4.80   2007 Q4   2.11   2013 Q1   -3.81   2018 Q2     2002 Q4   -3.83   2008 Q1   -0.06   2013 Q2   15.90   2018 Q3     2003 Q1   -6.71   2008 Q2   -1.45   2013 Q3   1.26   2018 Q4     2003 Q2   -1.17   2008 Q3   -9.25   2013 Q4   12.59   2019 Q1     2003 Q4   6.64   2009 Q1   -2.71   2014 Q2   1.91   2019 Q2     2004 Q1   -12.84   2009 Q2   1.21   2014 Q3   0.12   2014 Q3   0.12	2012 Q1	21	-5.09	20	17 Q2
2002 Q2-13.172007 Q35.742012 Q46.032018 Q12002 Q3-4.802007 Q42.112013 Q1-3.812018 Q22002 Q4-3.832008 Q1-0.062013 Q215.902018 Q32003 Q1-6.712008 Q2-1.452013 Q31.262018 Q42003 Q2-1.172008 Q3-9.252013 Q412.592019 Q12003 Q3-9.572008 Q4-8.412014 Q11.362019 Q22003 Q46.642009 Q1-2.712014 Q21.912004 Q1-12.842009 Q21.212014 Q30.12	2012 Q2	22	-0.89	20	17 Q3
2002 Q3   -4.80   2007 Q4   2.11   2013 Q1   -3.81   2018 Q2     2002 Q4   -3.83   2008 Q1   -0.06   2013 Q2   15.90   2018 Q3     2003 Q1   -6.71   2008 Q2   -1.45   2013 Q3   1.26   2018 Q4     2003 Q2   -1.17   2008 Q3   -9.25   2013 Q4   12.59   2019 Q1     2003 Q3   -9.57   2008 Q4   -8.41   2014 Q1   1.36   2019 Q2     2003 Q4   6.64   2009 Q1   -2.71   2014 Q2   1.91   2014 Q3   0.12	2012 Q3	Q3	0.24	20	17 Q4
2002 Q4   -3.83   2008 Q1   -0.06   2013 Q2   15.90   2018 Q3     2003 Q1   -6.71   2008 Q2   -1.45   2013 Q3   1.26   2018 Q4     2003 Q2   -1.17   2008 Q3   -9.25   2013 Q4   12.59   2019 Q1     2003 Q3   -9.57   2008 Q4   -8.41   2014 Q1   1.36   2019 Q2     2003 Q4   6.64   2009 Q1   -2.71   2014 Q2   1.91   2014 Q3   0.12	2012 Q4	24	6.03	20	18 Q1
2003 Q1   -6.71   2008 Q2   -1.45   2013 Q3   1.26   2018 Q4     2003 Q2   -1.17   2008 Q3   -9.25   2013 Q4   12.59   2019 Q1     2003 Q3   -9.57   2008 Q4   -8.41   2014 Q1   1.36   2019 Q2     2003 Q4   6.64   2009 Q1   -2.71   2014 Q2   1.91     2004 Q1   -12.84   2009 Q2   1.21   2014 Q3   0.12	2013 Q1	Q1	-3.81	20	18 Q2
2003 Q2   -1.17   2008 Q3   -9.25   2013 Q4   12.59   2019 Q1     2003 Q3   -9.57   2008 Q4   -8.41   2014 Q1   1.36   2019 Q2     2003 Q4   6.64   2009 Q1   -2.71   2014 Q2   1.91   2019 Q2     2004 Q1   -12.84   2009 Q2   1.21   2014 Q3   0.12	2013 Q2	Q2	15.90	20	18 Q3
2003 Q3 -9.57 2008 Q4 -8.41 2014 Q1 1.36 2019 Q2   2003 Q4 6.64 2009 Q1 -2.71 2014 Q2 1.91   2004 Q1 -12.84 2009 Q2 1.21 2014 Q3 0.12	2013 Q3	Q3	1.26	20	18 Q4
2003 Q4 6.64 2009 Q1 -2.71 2014 Q2 1.91   2004 Q1 -12.84 2009 Q2 1.21 2014 Q3 0.12	2013 Q4	24	12.59	20	19 Q1
2004 Q1 -12.84 2009 Q2 1.21 2014 Q3 0.12	2014 Q1	21	1.36	20	19 Q2
	2014 Q2	22	1.91		
2004 Q2 -7.75 2009 Q3 -2.93 2014 Q4 1.91	2014 Q3	23	0.12		
	2014 Q4	24	1.91		

CA

The index is a horizon calculation based on data compiled from 41 private equity & venture capital funds, including fully liquidated partnerships, formed between 1999 and 2018. All returns are net of fees, expenses, and carried interest.

## **DEVELOPED MARKETS**

#### AS OF JUNE 30, 2019

## FUND INDEX DETAILS: ONE QUARTER HORIZON POOLED RETURN

Net to Limited Partners

	MULTI-YEAR RETURNS
YEARS	HORIZON RETURN (%)
1 Year	13.70
2 Years	12.00
3 Years	11.48
4 Years	9.35
5 Years	8.93
6 Years	9.76
7 Years	10.55
8 Years	9.73
9 Years	10.33
10 Years	10.01
11 Years	8.80
12 Years	8.68
13 Years	9.13
14 Years	9.23
15 Years	9.04
16 Years	8.87
17 Years	8.78

ONE YEAR ROLLING RETURNS							
ONE YEAR ENDED	HORIZON RETURN (%)						
6/30/2019	13.70						
6/30/2018	9.65						
6/30/2017	9.92						
6/30/2016	-0.64						
6/30/2015	5.77						
6/30/2014	17.53						
6/30/2013	18.67						
6/30/2012	0.45						
6/30/2011	19.55						
6/30/2010	4.39						
6/30/2009	-17.07						
6/30/2008	4.57						
6/30/2007	46.10						
6/30/2006	19.13						
6/30/2005	-13.49						
6/30/2004	-22.70						
6/30/2003	-14.84						

## **EMERGING MARKETS**

#### AS OF JUNE 30, 2019

#### FUND INDEX DETAILS: ONE QUARTER HORIZON POOLED RETURN

Net to Limited Partners

QUARTER ENDING	HORIZON RETURN	QUARTER ENDING	HORIZON RETURN	QUARTER ENDING	HORIZON RETURN	QU/ El
1999 Q2	-	2004 Q3	15.01	2009 Q4	-2.32	2015
1999 Q3	_	2004 Q4	29.82	2010 Q1	-1.78	2015 (
1999 Q4	_	2005 Q1	28.02	2010 Q2	-6.23	2015 Q
2000 Q1	_	2005 Q2	-0.05	2010 Q3	9.62	2015 Q4
2000 Q2	_	2005 Q3	-0.16	2010 Q4	-0.36	2016 Q1
2000 Q3	_	2005 Q4	-24.23	2011 Q1	-3.05	2016 Q2
2000 Q4	_	2006 Q1	0.96	2011 Q2	0.05	2016 Q3
2001 Q1	-5.32	2006 Q2	2.75	2011 Q3	-6.86	2016 Q4
2001 Q2	-4.45	2006 Q3	2.39	2011 Q4	6.01	2017 Q1
2001 Q3	-4.20	2006 Q4	31.29	2012 Q1	3.58	2017 Q2
2001 Q4	8.12	2007 Q1	0.64	2012 Q2	0.78	2017 Q3
2002 Q1	-3.21	2007 Q2	16.32	2012 Q3	3.59	2017 Q4
2002 Q2	-2.73	2007 Q3	1.33	2012 Q4	5.00	2018 Q1
2002 Q3	-2.07	2007 Q4	14.03	2013 Q1	2.35	2018 Q2
2002 Q4	2.77	2008 Q1	9.93	2013 Q2	1.73	2018 Q3
2003 Q1	-2.16	2008 Q2	-2.29	2013 Q3	4.53	2018 Q4
2003 Q2	-2.46	2008 Q3	-11.51	2013 Q4	6.11	2019 Q1
2003 Q3	-6.34	2008 Q4	-6.14	2014 Q1	1.84	2019 Q2
2003 Q4	4.27	2009 Q1	-4.39	2014 Q2	3.68	
2004 Q1	-3.10	2009 Q2	3.82	2014 Q3	-0.38	
2004 Q2	30.91	2009 Q3	5.66	2014 Q4	-0.25	

CA

The index is a horizon calculation based on data compiled from 36 private equity & venture capital funds, including fully liquidated partnerships, formed between 1998 and 2013. All returns are net of fees, expenses, and carried interest.

## **EMERGING MARKETS**

#### AS OF JUNE 30, 2019

#### FUND INDEX DETAILS: HORIZON POOLED RETURN

Net to Limited Partners

	MULTI-YEAR RETURNS
YEARS	HORIZON RETURN (%)
1 Year	5.27
2 Years	6.82
3 Years	7.94
4 Years	5.76
5 Years	4.43
6 Years	6.19
7 Years	6.97
8 Years	6.67
9 Years	6.56
10 Years	5.91
11 Years	4.92
12 Years	5.43
13 Years	6.13
14 Years	5.51
15 Years	6.90
16 Years	7.15
17 Years	7.04

ONE YEAR ROLLING RETURNS							
ONE YEAR ENDED	HORIZON RETURN (%)						
6/30/2019	5.27						
6/30/2018	8.33						
6/30/2017	10.17						
6/30/2016	-0.67						
6/30/2015	-1.08						
6/30/2014	16.99						
6/30/2013	13.20						
6/30/2012	3.58						
6/30/2011	4.79						
6/30/2010	-5.90						
6/30/2009	-15.93						
6/30/2008	23.40						
6/30/2007	56.51						
6/30/2006	-22.62						
6/30/2005	93.97						
6/30/2004	28.15						
6/30/2003	-4.11						

## **EMERGING MARKETS EX AFRICA**

#### AS OF JUNE 30, 2019

#### FUND INDEX DETAILS: ONE QUARTER HORIZON POOLED RETURN

Net to Limited Partners

QUARTER ENDING	HORIZON RETURN	QUARTER ENDING	HORIZON RETURN	QUARTER ENDING	HORIZON RETURN
1999 Q2	-	2004 Q3	-3.74	2009 Q4	3.92
1999 Q3	_	2004 Q4	29.87	2010 Q1	13.16
1999 Q4	_	2005 Q1	2.67	2010 Q2	5.84
2000 Q1	_	2005 Q2	0.66	2010 Q3	16.60
2000 Q2	_	2005 Q3	-1.86	2010 Q4	-7.46
2000 Q3	_	2005 Q4	0.18	2011 Q1	-4.03
2000 Q4	_	2006 Q1	5.10	2011 Q2	-1.56
2001 Q1	_	2006 Q2	-1.11	2011 Q3	-5.75
2001 Q2	_	2006 Q3	-1.66	2011 Q4	4.09
2001 Q3	_	2006 Q4	12.72	2012 Q1	2.02
2001 Q4	_	2007 Q1	4.17	2012 Q2	-1.05
2002 Q1	_	2007 Q2	2.13	2012 Q3	0.76
2002 Q2	_	2007 Q3	2.89	2012 Q4	1.96
2002 Q3	_	2007 Q4	0.29	2013 Q1	2.15
2002 Q4	_	2008 Q1	-0.68	2013 Q2	-0.02
2003 Q1	-10.78	2008 Q2	4.99	2013 Q3	4.48
2003 Q2	-7.65	2008 Q3	-1.50	2013 Q4	4.56
2003 Q3	-3.33	2008 Q4	28.58	2014 Q1	2.11
2003 Q4	-4.10	2009 Q1	0.15	2014 Q2	3.13
2004 Q1	-4.09	2009 Q2	3.81	2014 Q3	2.85
2004 Q2	-2.18	2009 Q3	3.58	2014 Q4	-4.54

CA

The index is a horizon calculation based on data compiled from 23 private equity & venture capital funds, including fully liquidated partnerships, formed between 2000 and 2013. All returns are net of fees, expenses, and carried interest.

## **EMERGING MARKETS EX AFRICA**

#### AS OF JUNE 30, 2019

#### FUND INDEX DETAILS: HORIZON POOLED RETURN

Net to Limited Partners

	MULTI-YEAR RETURNS
YEARS	HORIZON RETURN (%)
1 Year	9.08
2 Years	8.96
3 Years	9.84
4 Years	7.29
5 Years	5.29
6 Years	6.37
7 Years	6.24
8 Years	5.77
9 Years	5.50
10 Years	6.19
11 Years	6.71
12 Years	6.73
13 Years	6.84
14 Years	6.80
15 Years	6.91
16 Years	6.86
17 Years	6.80

ONE YEAR I	ROLLING RETURNS
ONE YEAR ENDED	HORIZON RETURN (%)
6/30/2019	9.08
6/30/2018	8.84
6/30/2017	11.62
6/30/2016	-0.66
6/30/2015	-4.14
6/30/2014	14.82
6/30/2013	4.87
6/30/2012	-0.59
6/30/2011	0.02
6/30/2010	29.44
6/30/2009	31.86
6/30/2008	7.83
6/30/2007	18.57
6/30/2006	2.36
6/30/2005	30.21
6/30/2004	-12.90
6/30/2003	-28.09

## FUND SIZE ≤ \$100mm

#### AS OF JUNE 30, 2019

#### FUND INDEX DETAILS: ONE QUARTER HORIZON POOLED RETURN

Net to Limited Partners

QUARTER ENDING	HORIZON RETURN	QUARTER ENDING	HORIZON RETURN	QUARTER ENDING	HORIZON RETURN
1999 Q2	_	2004 Q3	-5.83	2009 Q4	4.51
1999 Q3	_	2004 Q4	4.67	2010 Q1	3.80
1999 Q4	_	2005 Q1	-1.52	2010 Q2	4.43
2000 Q1	_	2005 Q2	-0.44	2010 Q3	9.58
2000 Q2	_	2005 Q3	12.53	2010 Q4	2.02
2000 Q3	_	2005 Q4	0.65	2011 Q1	-2.19
2000 Q4	-3.74	2006 Q1	1.02	2011 Q2	5.40
2001 Q1	-3.01	2006 Q2	2.80	2011 Q3	-3.49
2001 Q2	-2.47	2006 Q3	13.25	2011 Q4	4.70
2001 Q3	-2.21	2006 Q4	15.38	2012 Q1	-1.88
2001 Q4	-1.57	2007 Q1	8.12	2012 Q2	-1.47
2002 Q1	-0.61	2007 Q2	7.96	2012 Q3	1.21
2002 Q2	-7.46	2007 Q3	5.14	2012 Q4	6.74
2002 Q3	-3.04	2007 Q4	4.41	2013 Q1	-3.03
2002 Q4	-2.53	2008 Q1	1.19	2013 Q2	13.31
2003 Q1	-5.00	2008 Q2	1.55	2013 Q3	1.37
2003 Q2	-1.83	2008 Q3	-6.03	2013 Q4	9.32
2003 Q3	-5.30	2008 Q4	4.17	2014 Q1	1.27
2003 Q4	2.42	2009 Q1	-0.61	2014 Q2	2.38
2004 Q1	-6.89	2009 Q2	2.73	2014 Q3	-0.16
2004 Q2	-4.12	2009 Q3	1.16	2014 Q4	1.18

CA

The index is a horizon calculation based on data compiled from 46 private equity & venture capital funds, including fully liquidated partnerships, formed between 1999 and 2018. All returns are net of fees, expenses, and carried interest.

#### AS OF JUNE 30, 2019

## FUND SIZE ≤ \$100mm

#### FUND INDEX DETAILS: HORIZON POOLED RETURN

Net to Limited Partners

	MULTI-YEAR RETURNS
YEARS	HORIZON RETURN (%)
1 Year	12.81
2 Years	9.10
3 Years	7.19
4 Years	6.30
5 Years	5.28
6 Years	6.94
7 Years	8.72
8 Years	7.20
9 Years	8.07
10 Years	8.69
11 Years	8.05
12 Years	8.28
13 Years	9.70
14 Years	9.91
15 Years	9.62
16 Years	9.27
17 Years	9.07

c	NE YEAR ROLLING RETURNS
ONE YEAR ENDED	HORIZON RETURN (%)
6/30/2019	12.81
6/30/2018	5.62
6/30/2017	3.80
6/30/2016	3.95
6/30/2015	1.57
6/30/2014	14.73
6/30/2013	18.85
6/30/2012	-2.31
6/30/2011	15.55
6/30/2010	14.78
6/30/2009	0.59
6/30/2008	12.18
6/30/2007	52.03
6/30/2006	17.21
6/30/2005	-2.40
6/30/2004	-13.39
6/30/2003	-11.76

## FUND SIZE > \$100mm

#### AS OF JUNE 30, 2019

#### FUND INDEX DETAILS: ONE QUARTER HORIZON POOLED RETURN

Net to Limited Partners

C.

QUARTER ENDING	HORIZON RETURN	QUARTER ENDING		HORIZON RETURN	QUARTER ENDING	ORIZON RETURN		QUARTER ENDING
2015 Q1	-3.83	2009 Q4	_	_	2004 Q3	_	2	1999 Q2
2015 Q2	-4.97	2010 Q1	_	_	2004 Q4	_	3	1999 Q3
2015 Q3	-7.86	2010 Q2	_	_	2005 Q1	_	4	1999 Q4
2015 Q4	7.44	2010 Q3	_	_	2005 Q2	_	1	2000 Q1
2016 Q1	0.85	2010 Q4	_	_	2005 Q3	_	2	2000 Q2
2016 Q2	-2.47	2011 Q1	_	_	2005 Q4	_	3	2000 Q3
2016 Q3	0.34	2011 Q2	_	_	2006 Q1	_	4	2000 Q4
2016 Q4	-6.52	2011 Q3	_	_	2006 Q2	_	1	2001 Q1
2017 Q1	7.73	2011 Q4	50	3.50	2006 Q3	_	2	2001 Q2
2017 Q2	2.66	2012 Q1	94	34.94	2006 Q4	_	3	2001 Q3
2017 Q3	1.13	2012 Q2	)6	-0.06	2007 Q1	_	4	2001 Q4
2017 Q4	3.43	2012 Q3	11	14.11	2007 Q2	_	1	2002 Q1
2018 Q1	4.70	2012 Q4	57	0.67	2007 Q3	_	2	2002 Q2
2018 Q2	2.28	2013 Q1	92	14.92	2007 Q4	_	3	2002 Q3
2018 Q3	2.00	2013 Q2	76	10.76	2008 Q1	_	4	2002 Q4
2018 Q4	4.63	2013 Q3	32	-3.82	2008 Q2	_	1	2003 Q1
2019 Q1	6.88	2013 Q4	19	-13.49	2008 Q3	_	2	2003 Q2
2019 Q2	1.88	2014 Q1	17	-12.47	2008 Q4	_	3	2003 Q3
	3.59	2014 Q2	99	-5.99	2009 Q1	_	4	2003 Q4
	-0.32	2014 Q3	17	3.47	2009 Q2	_	1	2004 Q1
	-0.10	2014 Q4	97	4.97	2009 Q3	_	2	2004 Q2

The index is a horizon calculation based on data compiled from 31 private equity & venture capital funds, including fully liquidated partnerships, formed between 1998 and 2016. All returns are net of fees, expenses, and carried interest.

#### AS OF JUNE 30, 2019

## FUND SIZE > \$100mm

#### FUND INDEX DETAILS: HORIZON POOLED RETURN

Net to Limited Partners

	MULTI-YEAR RETURNS
YEARS	HORIZON RETURN (%)
1 Year	8.43
2 Years	8.85
3 Years	9.62
4 Years	7.14
5 Years	5.99
6 Years	7.37
7 Years	7.89
8 Years	7.69
9 Years	7.55
10 Years	6.69
11 Years	5.55
12 Years	5.90
13 Years	6.35
14 Years	5.78
15 Years	6.99
16 Years	7.23
17 Years	7.15

ONEY	EAR ROLLING RETURNS
ONE YEAR ENDED	HORIZON RETURN (%)
6/30/2019	8.43
6/30/2018	9.33
6/30/2017	11.48
6/30/2016	-1.81
6/30/2015	-0.02
6/30/2014	17.90
6/30/2013	12.90
6/30/2012	5.12
6/30/2011	4.83
6/30/2010	-13.03
6/30/2009	-24.26
6/30/2008	22.25
6/30/2007	55.79
6/30/2006	-28.80
6/30/2005	109.14
6/30/2004	35.07
6/30/2003	-3.37

## PE/VC IMPACT INVESTING: FUND SINCE INCEPTION ANALYSIS





## ALL MARKETS

AS OF JUNE 30, 2019

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

Net to Limited Partners

CA

VINTAGE YEAR	POOLED RETURN (%)	ARITHMETIC MEAN (%)	MEDIAN (%)	EQUAL-WEIGHTED POOLED RETURN (%)	UPPER QUARTILE (%)	LOWER QUARTILE (%)	STANDARD DEVIATION (%)	DPI	RVPI	TVPI	NUMBER OF FUNDS
1998-2001	15.43	8.59	8.22	7.14	_	-	_	1.65	0.03	1.68	6
2002-2004	16.50	13.59	10.55	14.89	_	_	_	2.25	0.18	2.43	5
2005-2007	0.85	1.72	1.29	3.13	5.61	-3.91	9.36	0.63	0.44	1.07	15
2008-2010	6.40	5.34	4.83	6.32	8.56	2.57	7.05	0.49	0.96	1.45	17
2011-2013	9.46	6.67	9.68	7.44	12.54	1.11	8.98	0.14	1.17	1.31	15
2014-2017	12.22	7.83	8.02	11.96	15.10	0.24	11.67	0.08	1.15	1.23	18
1998-2017	7.41	6.28	6.87	7.14	12.05	0.56	9.46	0.40	0.94	1.34	76

Notes: Based on data compiled from 76 private equity & venture capital funds, including fully liquidated partnerships, formed between 1998 and 2017. 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 page **22** funds in the vintage year sample to produce a meaningful return.

## ALL MARKETS

#### AS OF JUNE 30, 2019

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

Net to Limited Partners

DEVELOPED MA	EVELOPED MARKETS FUNDS													
VINTAGE YEAR	POOLED RETURN (%)	ARITHMETIC MEAN (%)	MEDIAN (%)	EQUAL-WEIGHTED POOLED RETURN (%)	UPPER QUARTILE (%)	LOWER QUARTILE (%)	STANDARD DEVIATION (%)	DPI	RVPI	TVPI	NUMBER OF FUNDS			
1998-2001	_	_	-	_	_	_	_	_	-	_	2			
2002-2004	18.28	14.47	_	16.42	_	_	_	2.45	0.28	2.73	3			
2005-2007	0.92	2.15	3.57	3.13	_	_	_	0.81	0.24	1.06	6			
2008-2010	6.92	7.94	5.33	9.21	_	_	_	0.47	1.01	1.48	6			
2011-2013	7.74	10.02	12.03	10.80	_	_	_	0.36	0.92	1.28	5			
2014-2017	12.22	7.83	8.02	11.96	15.10	0.24	11.67	0.08	1.15	1.23	18			
1998-2017	8.73	7.29	8.02	8.14	12.75	1.40	9.71	0.30	0.99	1.29	40			

EMERGING MARK	ETS FUNDS										
VINTAGE YEAR	POOLED RETURN (%)	ARITHMETIC MEAN (%)	MEDIAN (%)	EQUAL-WEIGHTED POOLED RETURN (%)	UPPER QUARTILE (%)	LOWER QUARTILE (%)	STANDARD DEVIATION (%)	DPI	RVPI	TVPI	NUMBER OF FUNDS
1998-2001	17.07	13.79	_	11.66	—	—	—	1.74	0.01	1.75	4
2002-2004	_	_	_	_	_	_	_	_	_	_	2
2005-2007	0.82	1.43	0.96	3.12	4.55	-3.49	11.27	0.51	0.56	1.07	9
2008-2010	6.32	3.93	3.81	4.70	7.95	2.53	5.53	0.50	0.95	1.45	11
2011-2013	10.00	4.99	6.22	5.38	12.28	-2.31	10.33	0.08	1.24	1.32	10
2014-2017	—	_	_	—	—	—	_	—	—	_	0
1998-2017	6.82	5.16	6.01	6.22	9.81	0.56	9.20	0.49	0.90	1.39	36

EMERGING MARKETS EX AFRICA FUNDS											
VINTAGE YEAR	POOLED RETURN (%)	ARITHMETIC MEAN (%)	MEDIAN (%)	EQUAL-WEIGHTED POOLED RETURN (%)	UPPER QUARTILE (%)	LOWER QUARTILE (%)	STANDARD DEVIATION (%)	DPI	RVPI	TVPI	NUMBER OF FUNDS
1998-2001	_	_	_	-	_	-	_	_	-	-	2
2002-2004	_	_	_	_	_	_	_	_		_	1
2005-2007	6.42	4.29	2.75	5.30	_	_	_	1.09	0.26	1.35	6
2008-2010	3.99	3.93	3.19	4.22	_	_	_	0.56	0.67	1.24	6
2011-2013	9.61	5.28	6.22	5.79	13.44	-0.79	10.78	0.13	1.17	1.30	8
2014-2017	_	_	_	_	_	_	_	_	_	_	0
1998-2017	6.75	5.78	5.81	6.58	10.36	0.47	9.24	0.42	0.89	1.31	23

CA

Notes: Based on data compiled from 76 private equity & venture capital funds, including fully liquidated partnerships, formed between 1998 and 2017. 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.

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## ALL MARKETS

#### AS OF JUNE 30, 2019

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

Net to Limited Partners

FUND SIZE <= \$100mm											
VINTAGE YEAR	POOLED RETURN (%)	ARITHMETIC MEAN (%)	MEDIAN (%)	EQUAL-WEIGHTED POOLED RETURN (%)	UPPER QUARTILE (%)	LOWER QUARTILE (%)	STANDARD DEVIATION (%)	DPI	RVPI	турі	NUMBER OF FUNDS
1998-2001	5.83	6.51	7.20	5.87	_	-	—	1.35	0.17	1.52	5
2002-2004	16.50	13.59	10.55	14.89	_	_	_	2.25	0.18	2.43	5
2005-2007	4.94	4.32	4.78	5.18	7.73	-2.38	9.48	1.03	0.30	1.33	10
2008-2010	6.35	6.19	3.81	7.15	8.61	2.49	8.07	0.58	0.86	1.44	9
2011-2013	7.77	6.11	8.16	7.34	12.91	-0.79	9.74	0.40	0.91	1.31	12
2014-2017	-3.09	-3.54	_	3.83	_	_	_	0.08	0.87	0.95	4
1998-2017	8.90	5.75	6.21	7.73	12.03	-1.03	9.77	0.84	0.66	1.50	45

FUND SIZE > \$100mm											
VINTAGE YEAR	POOLED RETURN (%)	ARITHMETIC MEAN (%)	MEDIAN (%)	EQUAL-WEIGHTED POOLED RETURN (%)	UPPER QUARTILE (%)	LOWER QUARTILE (%)	STANDARD DEVIATION (%)	DPI	RVPI	TVPI	NUMBER OF FUNDS
1998-2001	_	_	_	_	_	_	-	-	_	_	1
2002-2004	_	_	_	_	_	_	_	_	_	_	0
2005-2007	-0.14	-3.49	0.76	-1.39	_	_	_	0.51	0.47	0.99	5
2008-2010	6.40	4.40	6.47	5.33	7.65	3.27	6.08	0.48	0.97	1.45	8
2011-2013	10.52	8.90	_	7.99	_	_	_	0.03	1.28	1.31	3
2014-2017	12.59	11.08	8.44	14.55	15.90	6.67	8.57	0.08	1.16	1.24	14
1998-2017	6.98	7.05	7.35	5.68	11.52	2.19	9.10	0.32	1.00	1.31	31

Notes: Based on data compiled from 76 private equity & venture capital funds, including fully liquidated partnerships, formed between 1998 and 2017. 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.

## DESCRIPTION OF PERFORMANCE MEASUREMENT METHODOLOGY

AS OF JUNE 30, 2019

Cambridge Associates LLC (CA) has established a database to monitor investments made by venture capital and other alternative asset partnerships. On June 30, 2019, 77 impact investing funds from the years 1998 through 2018 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 (SI IRR) 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

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)

**Total Value to Paid-In Ratio (TVPI**) is a ratio of the current value of remaining investments within a fund plus the total value of all distributions to date, to the total amount of capital paid-in to date.

Distribution to Paid-In Ratio (DPI) is a ratio of total capital returned to investors to the capital paid-in, both to date.

**Residual Value to Paid-In Ratio (RVPI)** is a ratio of the current value of all remaining investments within a fund, to the total contributions to date.



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