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JPEA Private Equity Performance Measurement Survey (2019)

March 2021

The Japan Private Equity Association
PricewaterhouseCoopers Aarata LLC



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1. Survey overview and methodology (1/3)

I. Private equity funds within the scope of this report

Private equity funds, mainly invested in Japan, managed by 27 of the full members (hereinafter referred to as the "Participating Companies") of the Japan Private Equity Association (hereinafter referred to as the "JPEA"), which were in existence between January 2008 and December 2019 (including funds liquidated on or before 31 December 2019) (hereinafter referred to as the "Funds").

II. Periods for performance measurement

Fiscal periods ended in the 10 years from January 2010 to December 2019 of the Funds, including liquidated Funds.

III. Performance calculation method

(1) The annualised internal rate of return (hereinafter referred to as "IRR") since inception and for certain periods up to the end of 2019 for each Fund is calculated using the following formula:

$$0 = \left[\sum_{i=1}^I CF_i (1 + r)^{-\left(\frac{t_i}{365}\right)} \right] + \left[V_E (1 + r)^{-\left(\frac{TD}{365}\right)} \right]$$

CF_i : i-th cash flow (-: inflow into the fund, +: outflow from the fund)

i : Sequence of cash flow during the valuation period (1, 2, ..., I)

r : IRR

t_i : Number of days from the first day of the valuation period to the i-th cash flow date

V_E : Value of the Fund at the end of the valuation period

TD : Number of total days in the evaluation period

- (1) All of the Funds are grouped according to the year of the Fund's first drawdown (vintage year) to calculate the IRR for each group.
- (2) The IRR of each vintage-year group for each period is calculated by asset-weighting the individual Fund returns using a method that reflects both beginning-of-period values and weighted cash flows (each cash flow is weighted by the length of stay in the Fund).

1. Survey overview and methodology (2/3)

IV. Method of survey

- (1) In July 2020, PricewaterhouseCoopers Aarata LLC (hereinafter referred to as "PwC Aarata"), commissioned by JPEA, asked the Participating Companies to provide the following data:
- Basic information of the Funds (fund name, investment strategy and targets, size (commitment amount), fiscal year end date, accounting standards, audit requirement and valuation method of the investees).
 - Cash flow data of the Funds from inception to the end of the most recent fiscal period (for the liquidated or closed Funds, to the end of the final fiscal period or liquidation).
 - Net asset value data of the Funds as of the end of each fiscal period from inception to the most recent fiscal period (for the liquidated or closed Funds, to the final fiscal period or liquidation)
- (2) Based of the above data provided, PwC Aarata calculated the following figures in accordance with the method stated in "III. Performance calculation method":

- Since-inception IRR, on an annualised basis, of each vintage-year group at the end of each fiscal year from 2010 to 2019 (*) [Refer to "2. Since-inception internal rate of return"]

* Performance of each Fund for each year should be calculated for the fiscal year ended in each calendar year (January 1 through December 31). However,

- For the Funds that provisionally close their accounts at December month-end or closer to December month-end, the provisional closing date is deemed as the fiscal year end.
- Performance of the Funds for which fiscal year ends in January, February or March is included in the performance of the previous calendar year of the year in which the fiscal year end belongs. For example, the Fund's performance for the fiscal year ended in January 2018 will be included in the 2017 performance.

Reference: Fiscal year-end or deemed fiscal year-end of the funds subject to the calculation in this report

Fiscal year-end (or deemed fiscal year-end)	Number of Funds
January (IRR is included in the previous year of the year in which the fiscal year end belongs)	4
February (IRR is included in the previous year of the year in which the fiscal year end belongs)	1
March (IRR is included in the previous year of the year in which the fiscal year end belongs)	1
June (IRR is included in the year in which the fiscal year end belongs)	2
September (IRR is included in the year in which the fiscal year end belongs)	3
December	77
Total	88

- IRR, on an annualised basis, of each vintage-year group for one year (2019), three years (2017-2019), five years (2015-2019) and ten years (2010-2019) ended at the end of 2019. [Refer to "3. Periodic internal rate of return"]

1. Survey overview and methodology (3/3)

V. Considerations for use of this report

- (1) This report does not disclose performance of any individual Participating Company or Fund, and the information used in the preparation of this report will not be disclosed to any other JPEA members and third parties other than PwC Aarata, a contractor for preparation of this report, except as set forth in the Confidentiality Agreement between PwC Aarata and each Participating Company.
- (2) The performance measurement made by PwC Aarata does not constitute an audit or assurance service, and PwC Aarata has not verified, validated or audited the reliability or accuracy of data obtained from the Participating Companies.
- (3) The Funds in scope of this report are mainly the funds that invest in Japan, but include also the funds that invest mainly in Japan but have some foreign investees. The Funds also include carve-outs from global funds that have investments in Japan. However, the Funds which invest in Japan as a small proportion of their investment portfolio in comparison to global territories, for which the Japan portion cannot be carved out, are therefore excluded from the scope of this report.
- (4) Valuation of investee companies are measured at fair value under International Financial Reporting Standards or U.S. GAAP, however, some Funds measure the investee companies at cost (minus impairment) or using certain valuation method specified in limited partnership agreements. The Funds also include the funds for which the investee's valuation is not audited by an external auditor.
- (5) The net asset value of each Fund at the end of each period used to calculate the IRR is after deduction of the estimated carried interest and additional costs that would be incurred if the investee were sold at the end of each period. However, these are not deducted for the Funds for which such data are not available.
- (6) The vintage year is generally defined as the year in which the first cash flow (initial drawdown) occurs. However, if it is impossible to calculate the IRR for the year, such as when the first cash flow is close to the end of the year and/or only costs and expenses are paid in the first year, then the year in which the IRR is first calculatable is the vintage year.
- (7) The IRR is not disclosed if the number of the Funds in each vintage year is less than three or if the number of the Funds in each vintage year is three or more, but all of these Funds are managed by a single Participating Company. In addition, if the IRR of another Fund can be estimated by disclosing the IRR, it is also not disclosed.
- (8) The IRR is calculated and presented on an annualised basis in principle. However, the IRR for the Fund with a measurement period of less than one year (e.g., the since-inception IRR in 2018 for the Fund launched in September 2018) is not annualised.

2. Since-inception internal rate of return (1/2)

Annualised since-inception IRR by vintage year^(*1)

Upper: IRR		Total number of Funds by vintage year ^(*3)	To 2019	To 2018	To 2017	To 2016	To 2015	To 2014	To 2013	To 2012	To 2011	To 2010
Lower: Number of Funds ^(*2)												
Vintage year up to 2008		37	3.87%	5.51%	6.55%	9.72%	10.82%	10.97%	9.08%	7.98%	5.67%	6.80%
			6	8	13	17	22	23	27	33	35	37
Vintage year 2009		2	n/a ^(*5)									
			1	1	2	2	2	2	2	2	2	2
Vintage year 2010		1	n/a ^(*5)									
			1	1	1	1	1	1	1	1	1	1
Vintage year 2011		3	n/a ^(*5)	12.89%	12.48%	10.30%	9.06%	5.77%	-1.10%	-11.39%	-95.97%	
			2	3	3	3	3	3	3	3	3	
Vintage year 2012		3	n/a ^(*5)		24.88%	21.75%	31.05%	25.55%	15.39%	-7.98%		
			2	2	3	3	3	3	3	3		
Vintage year 2013		8	17.78%	19.91%	20.38%	18.21%	5.06%	-1.56%	-27.00%			
			7	7	7	8	8	8	8			
Vintage year 2014		5	19.73%	22.76%	27.62%	32.44%	40.31%	36.43%				
			5	5	5	5	5	5				
Vintage year 2015		2	n/a ^(*5)									
			2	2	2	2	2					
Vintage year 2016		7	-2.01%	-14.06%	-20.00%	-20.27%						
			7	7	7	7						
Total – Vintage year up to 2016 ^(*4)		68	8.99%	9.51%	9.51%	10.71%	11.53%	10.98%	8.56%	7.34%	5.31%	6.52%
			33	36	43	48	46	45	44	42	41	40
Reference ^(*4)	Vintage year 2017	9	21.64%	12.05%	-6.66%							
			9	9	9							
	Vintage year 2018	8	-18.05%	35.13%								
			8	8								
	Vintage year 2019	1	n/a ^(*5)									
			1									

2. Since-inception internal rate of return (2/2)

[Notes]

For a general explanation of this table, see Section 1. IV. (2) a. of this report.

- *1 The IRR for each year end includes the performance of the Funds that started or ended in the middle of each year. However, the performance of the Funds liquidated before the previous year are not included in the rates of each year. For example, the performance of the Fund, which ended in September 2015, is included in the IRR in and before “To 2015” and is not included in and after “To 2016”. The IRR for each Fund is calculated from the date when the first cash flow is generated until the end of the most recent fiscal period or the date when the last cash flow is generated. The IRR of the Fund during the liquidation period is also included in the calculation.
- *2 Number of Funds: The number of the Funds whose return is included in each IRR by vintage year and by period end. This includes the number of the Funds that started or ended in the middle of each year.
- *3 Total number of Funds by vintage year: The total number of all Funds included in each vintage-year group. This includes the number of the Funds ended before the end of 2019.
- *4 The total figures for each year end are based on the Funds for which the vintage year is prior to 2016 (i.e. the Funds that were more than three years old, aligning with the nature of private equity funds which are designed to obtain medium-to-long-term returns). The IRRs for the Funds launched in 2017 and thereafter are also presented for reference.
- *5 The IRR is not disclosed but presented as “n/a” if the number of Funds in each vintage year is less than three.

3. Periodic internal rate of return (1/2)

Annualised IRR of return by vintage year for each period ended in 2019^(*1)

Upper: IRR	Total number of Funds by vintage year ^(*3)	1 year: 2019	3 years: 2017-2019	5 years: 2015-2019	10 years: 2010-2019
Lower: Number of Funds ^(*2)					
Vintage year up to 2008	37	-38.09%	2.60%	0.94%	13.96%
		6	12	22	37
Vintage year 2009	2	n/a ^(*5)			
		1	1	2	2
Vintage year 2010	1	n/a ^(*5)			
		1	1	1	
Vintage year 2011	3	n/a ^(*5)	32.96%	20.03%	
		2	3	3	
Vintage year 2012	3	n/a ^(*5)	22.53%	23.60%	
		2	3	3	
Vintage year 2013	8	4.91%	15.92%	22.03%	
		7	7	8	
Vintage year 2014	5	8.97%	9.41%	17.44%	
		5	5	5	
Vintage year 2015	2	n/a ^(*5)			
		2	2		
Vintage year 2016	7	15.17%	-1.17%		
		7	7		
Vintage year 2017	9	32.76%			
		9			
Vintage year 2018	8	-23.55%			
		8			
Vintage year 2019	-				
Total	85	14.80%	12.07%	10.50%	13.43%
		50	41	44	39
Reference: Return of TOPIX Total Return Index ^(*4)	-	18.12%	6.65%	6.40%	8.93%

3. Periodic internal rate of return (2/2)

[Notes]

For a general explanation of this table, see Section 1. IV. (2) b. of this report.

- *1 The IRR for each measurement period includes the performance of the Funds which were in existence at the beginning of the measurement period - one, three, five, and ten years up to the end of 2019. For example, the three-year (2017-2019) rate covers the Funds which started before 2016 and includes the Funds that ceased operations before the end of 2019.
- *2 Number of Funds: The number of Funds whose return is included in each IRR by vintage year and by measurement period. This includes the number of Funds that ceased operations before the end of the measurement period (i.e. the end of 2019).
- *3 Total number of Funds by vintage year: The total number of all Funds included in each vintage-year group. This includes the number of Funds which ceased operations before the end of the measurement period (i.e. the end of 2019).
- *4 Source of TOPIX Total Return Index: Bloomberg
- *5 The IRR is not disclosed but presented as “n/a” if the number of Funds in each vintage year is less than three.

Appendices

A. Total value to since-inception paid-in capital

B. List of Participating Companies

A. Total value to since-inception paid-in capital (1/2)

Total value to since-inception paid-in capital (hereinafter referred to as “TVPI”) as of the end of 2019 by vintage year^(*1)

		Number of Funds ^(*2)	TVPI as of the end of 2019
Vintage year up to 2008		39	1.50x
Vintage year 2009		2	n/a ^(*4)
Vintage year 2010		1	n/a ^(*4)
Vintage year 2011		3	1.41x
Vintage year 2012		3	1.55x
Vintage year 2013		8	1.80x
Vintage year 2014		5	1.76x
Vintage year 2015		2	n/a ^(*4)
Vintage year 2016		7	0.97x
Total – Vintage year up to 2016 ^(*3)		70	1.50x
Reference ^(*3)	Vintage year 2017	9	1.37x
	Vintage year 2018	8	0.85x
	Vintage year 2019	1	n/a ^(*4)

A. Total value to since-inception paid-in capital (2/2)

[Notes]

*1 TVPI as of the end of 2019 by vintage year is calculated using the following method. The TVPI of the Funds which ceased operations before the end of 2019 is also included in scope of the calculation.

(1) The TVPI of each Fund is calculated using the following formula:

$$\text{TVPI} = (\text{Accumulated distributions} + \text{Residual value at the end of the period}) / \text{Accumulated paid-in capital}$$

(2) TVPI by vintage year is calculated by weighting the TVPI of each Fund with the accumulated paid-in capital.

*2 Number of Funds: The number of Funds whose return is included in each TVPI by vintage year. This includes the number of Funds which ceased operations before the end of 2019.

*3 The total figures are based on Funds of which vintage year is prior to 2016 (i.e. the Funds that were more than three years old, aligning with the nature of private equity funds that are designed to obtain medium-to-long-term returns). The TVPI for Funds launched in 2017 and thereafter are also presented for reference.

*4 The TVPI is not disclosed but presented as “n/a” if the number of the Funds in each vintage year is less than three.

B. List of Participating Companies

Participating Companies (in alphabetical order)

Advantage Partners Inc.

Ant Capital Partners Co., Ltd.

Basic Capital Management, Limited

Carlyle Japan, L.L.C.

CAS Capital, Inc.

CITIC Capital Partners Japan Limited

CLSA Capital Partners (Japan) K.K.

Endeavor United Co., Ltd.

iSigma Capital Corporation

Iwakaze Capital, Inc.

J Will Partners, K.K.

Japan Industrial Solutions Co., Ltd.

J-STAR Co., Ltd.

KKR Japan Limited

The Longreach Group, Inc.

Marunouchi Capital Inc.

Mercuria Investment Co., Ltd.

Mizuho Capital Partners Co., Ltd.

New Horizon Capital Co., Ltd.

Nomura Capital Partners Co., Ltd.

Permira Advisors K.K.

Ping An Japan Investment Co., Ltd.

Polaris Capital Group Co., Ltd.

Rising Japan Equity, Inc.

T Capital Partners Co., Ltd.

Unison Capital, Inc.

Yukon Capital Partners Co. Ltd.

Disclaimer

The data within this report was measured by PricewaterhouseCoopers Aarata LLC (hereinafter referred to as "PwC Aarata"), which was commissioned by the Japan Private Equity Association (hereinafter referred to as the "JPEA"), based on the data provided by the Participating Companies and the assumptions stated in "1. Survey overview and methodology". The JPEA and PwC Aarata do not assume any responsibility for any inaccuracy in the data included in this report nor for the accuracy of the underlying amounts submitted by the Participating Companies.

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