

## **VEC YEARBOOK 2015**

**Annual Report on Japanese Startup Businesses 2015** 

Venture Enterprise Center, Japan



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**March 2016** 

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#### Foreword

It is my pleasure to publish the "VEC YEARBOOK 2015 -Annual Report on Japanese Startup Businesses 2015-" in cooperation with our collaborators. We are proud to author the only report that provides comprehensive coverage of Japan's venture capital and startup businesses, which is often quoted in academic literature and by the media.

The VEC YEARBOOK 2015 will introduce, in the same manner as last year's yearbook, certain views in Silicon Valley, as well as current explanations about the latest developments, primarily in corporate venture capital (CVC), crowdfunding and the robotics industry. Moreover, with the cooperation of our collaborators, we have been able to further enhance the quality of the survey on startup businesses.

The total annual amount of venture capital investments stood at ¥117.1 billion in FY 2014, down 35.6% from ¥181.8 billion in FY 2013. However, the decline was attributable to a significant decline in overseas investments, and Japanese domestic investments actually rose 3.1% year on year, to ¥74 billion. Considering the situation in which overall valuations have surged and a tendency to constrain investments has apparently commenced, we consider that the figures +3.1% came out at reasonable levels.

At the end of April and early May 2015, Prime Minister Shinzo Abe visited Silicon Valley, becoming the first Japanese Prime Minister to do so. There, he announced the "Project for a Bridge of Innovation between Silicon Valley and Japan." (Please refer to the text for the details of the project.) Although it would require time, I personally believe that it would be productive in the long term if we could send inexperienced Japanese capitalists to Silicon Valley and let them learn Silicon Valley-style investments for several years.

The government and various agencies have been steadily scaling up venture promotional initiatives, and I am paying particular attention to recent developments in the Japan Science and Technology Agency (JST) and New Energy and Industrial Technology Development Organization (NEDO). The common theme is open innovation. Having established a support program for launching innovation hubs, the JST is aiming to develop innovation hubs centered on national research with development agencies, such as the Japan Aerospace Exploration Agency (JAXA). NEDO has decided to hold events to share successful cases of open innovation, both in Japan and overseas, by establishing the Japan Open Innovation Council.

Moreover, a noteworthy recent development is that mega banks have finally started to pay attention to venture investments. The banks had been leaving the investment to startups to their subsidiaries' VC, but now they have started to respond to FinTech-related startup companies. Although it is still difficult for the banks to deal with seed/early stage businesses, they have reportedly decided to develop a structure in which the banks themselves will make investments in and extend loans to businesses after this stage, including technological startups other than those related to the FinTech industry. This activity is outside the scope of CVC because banks are not industrial firms. However, it is a welcome development from the perspective that it is another sign that major companies in Japan are starting to pay attention to startups.

I offer my deepest gratitude to those who participated in our surveys and interviews. We will continue improving our data collection so that we can provide even more useful and relevant information. Thank you for your continued support.

Venture Enterprise Center, Japan President Ryuji Ichikawa

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#### **Chapter I. Venture Investment Trends (Japan)**

#### 1. Venture Capital Investment Trends in FY 2014

#### (1) Overview of Investment Conditions in FY 2014

Venture Enterprise Center, Japan (VEC) carried out a survey on investment trends with venture capital (VC) firms and other organizations that were registered in Japan, and received responses from 106 organizations. It also held interviews with major VCs about the results of the survey.

The total amount of investments by VCs and other organizations in Japan in FY 2014 (April 2014 to March 2015) was ¥117.1 billion, with investments in a total of 969 deals (**See Figure 1-1-1**). Compared with FY 2013, the investment amount fell 35.6%, with a 3.1% decrease in the number of deals. The average investment per deal was ¥121 million (**See Figure 1-1-3**), a 33.5% decrease compared with ¥182 million in FY 2013.

Since bottoming out in FY 2009, a year after the financial crisis, investments in startups have staged marginal recoveries. However, they have not reached the peak levels (around ¥280 billion) achieved in the period from FY 2000 to FY 2007.

Looking at the breakdown by investment destination, investments in domestic companies totaled ¥74 billion, a 3.1% increase compared to ¥71.8 billion in FY 2013. However, the number of deals was 727, down by 19 compared with 746 deals in FY 2013 (**See Figure 1-1-2**). On the other hand, ¥41.8 billion was invested in overseas companies, a 61.8% drop compared to ¥109.3 billion invested in FY 2013.

With respect to investment per deal by investment destination, the average investment per deal in domestic companies was ¥102 million, a 6.3% increase compared to ¥96 million in FY 2013. Despite a decline in the number of investments, the increasing deal sizes meant that the total investments in domestic companies increased. On the other hand, investment per deal in overseas companies was ¥204 million on average, a 64.5% decrease compared to ¥575 million in FY 2013.

In interviews about the survey results, a number of venture capitalists stated that the fact that investments in domestic companies were rising agreed with what they sensed through their own businesses. In addition, a majority of venture capitalists held the view that valuations had surged. As reasons for this, some venture capitalists pointed out the concentration of investments in certain attractive startup companies and increases in venture investments (including LP\* investments) by corporations. A number of venture capitalists also commented that general VCs had started to be selective in choosing investment targets as a result of a surge in valuations. Accordingly, it is possible that the number of investments in domestic companies will continue to decline in the next fiscal year and beyond.

Some venture capitalists commented that investments in domestic companies were expected to continue to increase in the future because the number of high-quality domestic startup companies was rising. However, there were certain venture capitalists who expected total investments will fall, reflecting the view that investments in attractive startups and overall valuations had peaked.

Moreover, it is believed that a decline in investments in overseas companies was greatly affected by changes in investments by several specific VC firms because VCs that actively invest in overseas companies are limited to certain major firms.

\* Limited partner: Investors with limited liability

(¥ Billions) (Number of deals) 300 4,200 282.5 279.0 3,736 3,500 250 234.5 232.3 2,788 196.8 2,672 193.3 200 2,800 (181.8) 0.7 2,774 2,579 2,245 165.0 **2** 759 150 2,100 136.6 (124.0)109.3 (117.1) 113.2 (102.6) 1.3 100 1,400 87.5 1,017 51.0 ,294 991 50 700 0 FY1999 FY2000 FY2001 FY2002 FY2003 FY2004 FY2005 FY2006 FY2007 FY2008 FY2009 FY2010 FY2011 FY2012 FY2013 FY2014 VC investments in companies VC investments VC investments Number of deals whose locations are unknown in domestic companies in overseas companies

Figure 1-1-1 Trend of Investments and Loans by Japanese Venture Capital

Value in ( ) is the total amount invested.

Note1: Applicable period for each year is as follows: FY 1999: July 1999 to June 2000; FY 2000 to 2002: October to September of the following year

(Source: Survey on Venture Capital Investment Trends, VEC)

FY 2003 and later: April to March of the following year

Note2: Only the total amount is listed until FY 2010.

Note3: The number of deals shows the total number of deals.

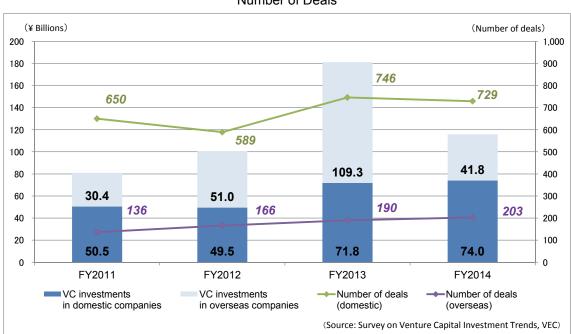


Figure 1-1-2 Trend of Investments in Domestic and Overseas Companies and **Number of Deals** 

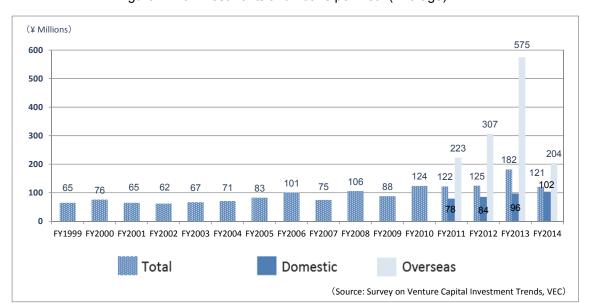


Figure 1-1-3 Investments and Loans per Deal (Average)

Note: Figures above are obtained by dividing investment amount by number of deals each year.

#### (2) Quarterly Trend of VC Investments

VEC has been conducting surveys on the trend of investments on a quarterly basis since 2012, in addition to the annual survey. Figure 1-1-4 shows the trend of investments (flows) made by VCs and other organizations up to the second quarter of 2015.

In accordance with the quarterly survey, total investments in FY 2014 (from Q2 2014 to Q1 2015) stood at ¥118.3 billion, almost the same level as those in the annual survey (¥117.1 billion)<sup>Note</sup>. Quarterly investments appear to follow a cycle. Since 2012, when the surveys commenced, investments in Q2 (April through June) have been around half of those in Q1 (January through March) every year, showing the effects of a fall in investments, in a reaction to increased investments that is typical at the end of the fiscal year.

Note: In FY 2013 (from Q2 2013 to Q1 2014), there was a difference between total investments based on the quarterly survey (¥177.4 billion) and the results of the annual survey (¥181.8 billion). It is believed that the main reason for this is that the number of VCs that responded to the annual survey was higher than the number of those that responded to the quarterly survey.

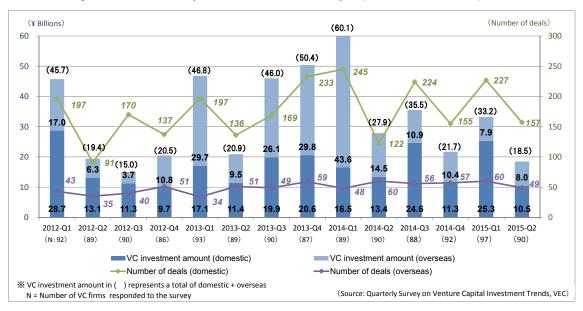


Figure 1-1-4 Quarterly Trend of Investments by Japanese Venture Capital

#### (3) Investment Trends by Industry and Stage

#### (3-1) Industry Analysis

When examining the breakdown of investments by industry in FY 2014 (See Figure 1-1-5), investments in IT-related industries (mainly PCs, mobile, and communications) accounted for around 50% of total investments. Investments in Biotech/Medical Services/Healthcare decreased from 20.5% in FY 2013 to 16.2% in FY 2014.

Looking at the FY 2014 results by the number of deals (**See Figure 1-1-6**), the percentages were almost the same as those by investment amounts. Compared to the figures in FY 2013, the percentage of Biotech/Medical Services/Healthcare rose from 10.4% to 15.6%, and in contrast, that of Industrial/Energy/Other Industries declined from 23.1% to 14.7%. In Industrial/Energy/Other Industries, the absolute investment amount increased while the absolute number of deals declined, indicating an increase in investments per deal.

In Biotech/Medical Services/Healthcare, certain venture capitalists believed that general expectations had been high, particularly in the biotech sector, but that its growth rate was slowing down. On the other hand, there were other venture capitalists who said that because the absolute investment amount grew from \$15.8\$ billion to \$17.6\$ billion (See Figure 1-1-7), the sector was not yet at a stage where a pessimistic view could be justified.

In this survey, services and industries that use IT are included in IT-Related for both the investment amount and the number of deals. As a result, attention is required due to the fact that certain service businesses are included in IT-Related, not in Products/Services. Moreover, because there were VC firms that did not respond to a survey on the investment distribution by industry, the total number of deals and the total investment amount are lower than those presented in Figure 1-1-1.

Figure 1-1-5 Investment Distribution by Industry

(Percentage of JPY value invested)

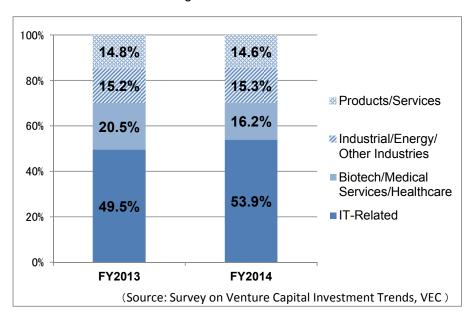


Figure 1-1-6 Investment Distribution by Industry

(Percentage of number of deals invested)

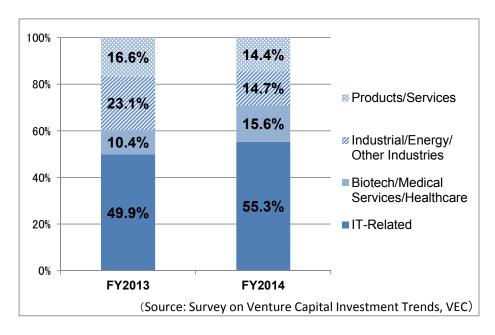


Figure 1-1-7 Investment Distribution by Industry (Investment amount)

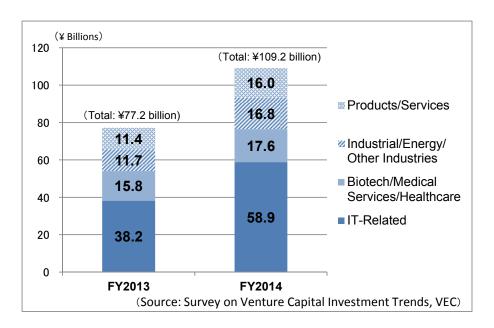
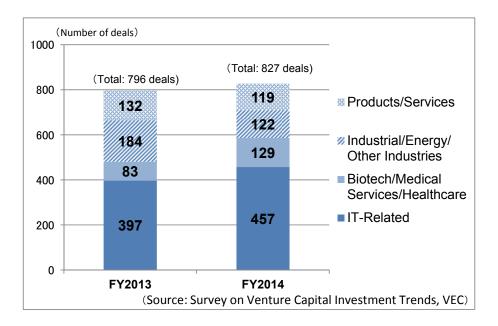


Figure 1-1-8 Investment Distribution by Industry (Number of deals)



Reference: Figure 1-1-9 shows investments in domestic companies by industry in FY 2014. The amount was calculated by adding up the investment amounts presented in the quarterly surveys (from Q2 2014 to Q1 2015) and converting them to annual figures.

Figure 1-1-9 FY 2014 Investments in Domestic Companies by Industry and Percentage

Industry	Amount(¥ Bil)	Percentage
Products/Services	15.9	22.6%
Industrial/Energy/Other Industries	10.0	14.1%
Biotech/Medical Services/Healthcare	12.8	18.1%
IT-Related	31.9	45.2%
Total	70.5	100%

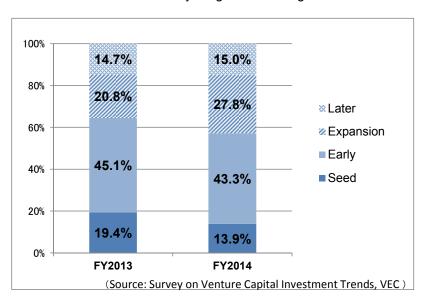
(Source: Quarterly Survey on Venture Capital Investment Trends, VEC)

#### (3-2) Stage Analysis

When examining investment distribution by stage (See Figure 1-1-10), FY 2014 witnessed slight decreases in Seed Stage business and Early Stage business investments, down from 19.4% in FY 2013 to 13.9% in FY 2014 and from 45.1% in FY 2013 to 43.3% in FY 2014. On the other hand, the percentage of Expansion Stage businesses rose from 20.8% in FY 2013 to 27.8%.

Looking at the FY 2014 results by the percentage of the number of deals (See Figure 1-1-11), compared with that in FY 2013, Early Stage businesses rose from 33.2% to 48.1%, while Later Stage businesses declined from 30.8% to 11.9%. Some venture capitalists thought that the number of investments in Early Stage businesses increased because there was an increase in the number of VCs that shifted their focus on investments in Early Stage businesses whose valuations were relatively low, avoiding investments in companies with high valuations.

Figure 1-1-10 Investment Distribution by Stage (Percentage of JPY value invested)



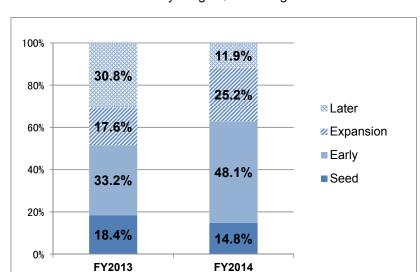


Figure 1-1-11 Investment Distribution by Stage (Percentage of number of deals invested)

Figure 1-1-12 Investment Distribution by Stage (Per deal)

(Source: Survey on Venture Capital Investment Trends, VEC )

01	Amount(¥ Mil)		
Stage	FY 2013	FY 2014	
Later	46	150	
Expansion	114	132	
Early	132	107	
Seed	102	112	

(Source: Quarterly Survey on Venture Capital Investment Trends, VEC)

Note: Because there were VC firms that did not respond to a survey on investment distribution by stage, the total amount is lower than that presented in Figure 1-1-1.

Reference 1: Figure 1-1-13 shows investments in domestic companies by stage in FY 2014. The amount was calculated by adding up the investment amounts presented in the quarterly surveys (from Q2 2014 to Q1 2015) and converting them to annual figures.

Figure 1-1-13 FY 2014 Investments in Domestic Companies by Stage and Percentage

Stage	Amount(¥ Bil)	Percentage
Later	10.7	16.5%
Expansion	15.9	24.5%
Early	27.3	42.2%
Seed	10.9	16.8%
Total	64.8	100%

 $(Source: Quarterly \, Survey \, on \, \, Venture \, \, Capital \, \, Investment \, Trends, \, VEC)$ 

Figure 1-1-14 Definition of Stage

Stage	Definition		
Seed	Companies undergoing research and product development but has yet to establish a commercial business operation.		
Early	Companies with product development, and the early stage of marketing, manufacturing and sales promotion.		
Expansion	Companies that have started production and shipment with its inventory and/or sales growing in size.		
Later	Companies that have a continuous cash flow and are nearing the stage for IPO.		

#### (4) New Venture Capital Funds Launched

In FY 2014, 39 VC funds were launched with a total fund value of ¥91.1 billion (**See Figure 1-1-15**). The total fund value has recovered compared to a low of ¥47.4 billion in FY 2009, when the business was affected by the collapse of Lehman Brothers. However, since the value hit a peak of ¥119.7 billion in FY 2011, it has continued to experience small declines.

Still, there are a number of venture capitalists that feel that both the number of funds launched and the total fund value have been growing. This survey does not include certain funds launched by corporations (so-called corporate venture capital; CVC). The number of funds launched and the total fund value including CVC are higher than the figures presented in this survey.

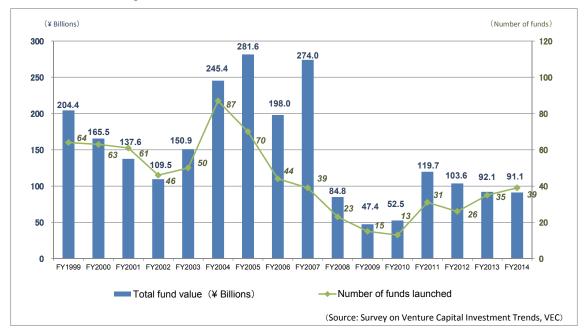


Figure 1-1-15 Number of New Funds and Total Fund Value

#### (5) Status of Investment Exits

#### (5-1) Status of Exits for FY 2014

In FY 2014, a survey item for exits, M&A, was added (until FY 2013, M&A were included in Trade Sales). Looking at the status of exits in FY 2014 compared with FY 2013, the number of M&A and Trade Sales declined significantly from 278 cases to 166 cases (36 M&A and 130 Trade Sales) (See Figure 1-1-16). The number of cases other than the above did not change substantially.

A number of venture capitalists expect that M&A will continue to grow in the future. Both VCs and startups appear to have been softening the resistance against M&A.

With the establishment of deemed liquidation clauses, there are class shares that bring about the same effects as the distribution of preferred residual assets at the time of liquidation when M&A are carried out. Because this type of investments through class shares has been increasing, VCs are now able to secure profits not necessarily only through IPOs, but also through M&A. In fact, there are VCs that tend to welcome M&A, through which they are able to promptly lock in profits.

In the period between 2013 and the first half of 2015, on the back of the active stock market, valuations at the time of IPOs surged and the difference in prices compared with M&A became significant, resulting in a situation in which IPOs generated relatively higher returns. In the short term, if stock prices fall and the market becomes unfavorable for IPOs, it is possible that M&A will increase.

On the other hand, in the long term, certain venture capitalists believe that whether or not M&A will increase in the same manner as in the United States depends on a change in the perception of buyers. In Japan, the target of active M&A of startup companies is limited to certain companies in the Internet sector. When major companies start carrying out M&A in other sectors, M&A as exits are forecasted to increase in Japan in the same manner as in the United States.

Startup companies also appear to be softening the resistance against the idea of being acquired, and a number of startups are actually participating in events in which major companies and startups meet to holding discussions about possible M&A.

With the change in the perception about M&A of both VCs and startups, in addition to other factors, it appears that a number of venture capitalists believe that M&A will increase in the future.

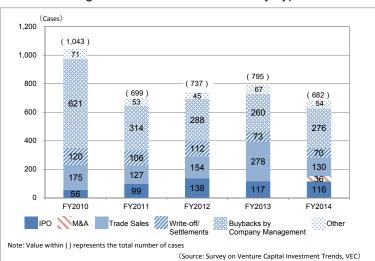


Figure 1-1-16 Number of Exits by Type

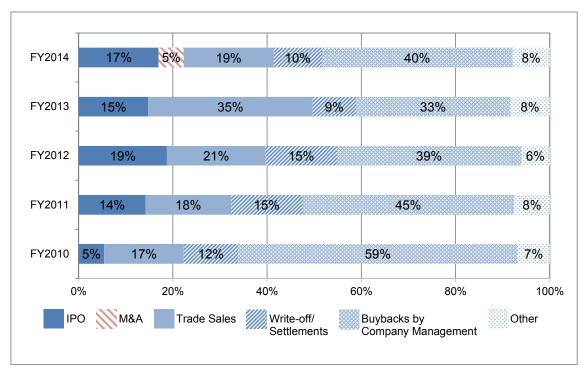


Figure 1-1-17 Percentage of Number of Exits by Type

Reference: M&A: Sales that involve the transfer of management rights

Trade Sales: Sales to secondary funds, etc.

#### (5-2) IPO Trends

As of the end of October 2015, the number of IPOs in 2015 is expected to be 75. It is believed that it will be between 80 and 100 in 2015 by the end of the year. Reviewing the past decade, following the collapse of Lehman Brothers in the fall of 2008, the number of IPOs decreased sharply in 2009 (19 IPOs). However, the number of IPOs began to increase gradually since 2010, and exceeded 50 in 2013 for the first time in six years.

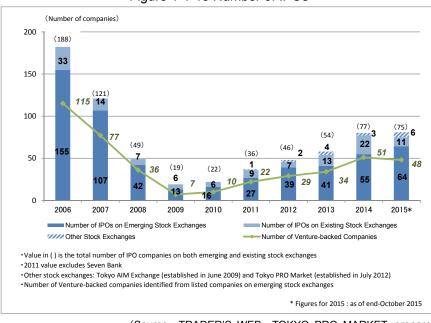


Figure 1-1-18 Number of IPOs

(Source: TRADER'S WEB, TOKYO PRO MARKET, prepared by VEC)

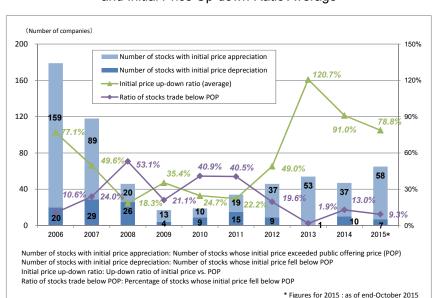


Figure 1-1-19 Initial Price Appreciation and Depreciation, Stocks Traded Below POP, and Initial Price Up-down Ratio Average

Note: Excludes TOKYO AIM in 2011 and TOKYO PRO MARKET from 2012 to 2014.

(Source: TRADER'S WEB, prepared by VEC)

Figure 1-1-20 Summary of IPO in 2015 (as of end-October)

	Listing Date	Market	Stock Name	Industry	Initial Price Up-Down Ratio	2015 Oct-End Up-Down Ratio vs. Initial Price
1	2/12	Mothers	KeePer Giken	Service	49%	-51%
2	2/18	Mothers	FirstLogic	Service	53%	-19%
3	2/18	Mothers	FIRST BROTHERS	Real Estate	2%	-33%
4	2/19	Mothers	ALBERT	Information/Telecommunications	116%	-74%
5 6	2/20 2/23	TSE 2 Mothers	HOKURYO Silicon Studio	Fisheries/Agriculture and Forestry Information/Telecommunications	9% 102%	60% -65%
7	3/17	JASDAQ	MKSystem	Information/Telecommunications	332%	-84%
8	3/17	Mothers	Collabos	Information/Telecommunications	138%	-30%
9	3/19	Mothers	Showcase-TV	Information/Telecommunications	194%	-33%
10	3/19	Mothers	HUMANWEB	Retail	12%	18%
11	3/19	JASDAQ	SLD Entertainment	Retail	15%	14%
12	3/24	Mothers	IID	Service	46%	-31%
13	3/24	Mothers	RS Technologies	Metalware	-24%	15%
14	3/24	Mothers	First Corporation	Construction	25%	135%
15 16	3/25 3/25	Mothers	Aiming HOUSEDO	Information/Telecommunications	12% 47%	5% -62%
17	3/25	Mothers JASDAQ	SHINDEN HIGHTEX	Real Estate Wholesale	12%	-38%
18	3/26	Mothers	PLATZ	Other Product	70%	-36%
19	3/26	Mothers	Japan Animal Referral Medical Center	Service	44%	-1%
20	3/26	Mothers	Mobile Factory	Information/Telecommunications	99%	-23%
21	3/27	Mothers	sMedio	Information/Telecommunications	59%	-45%
22	4/8	Mothers	SanBio	Pharmaceutical	-15%	-43%
23	4/17	Mothers	kaihan	Retail	76%	-21%
24	4/20	Mothers	Hamee	Retail	67%	-38%
25	4/21	TSE 2	CRE	Real Estate	-7%	-31%
26	4/22	Mothers	Nippon Ski Resort Development	Service	10%	17%
27	4/24	Mothers	Rentracks	Service	53%	-62%
28 29	4/24 4/28	JASDAQ Mothers	SANKI SERVICE	Service	37% 0%	-20% -50%
30	4/28	Mothers	Gunosy LINKBAL	Service Service	28%	-50% -55%
31	4/28	Mothers	JIG-SAW	Information/Telecommunications	236%	64%
32	4/30	Mothers	DesignOne Japan	Service	51%	-61%
33	4/30	Mothers	TerraSky	Information/Telecommunications	350%	108%
34	6/16	JASDAQ	Smartvalue	Information/Telecommunications	345%	-73%
35	6/16	Mothers	HEALIOS	Pharmaceutical	23%	-19%
36	6/17	Mothers	MarketEnterprise	Retail	167%	-32%
37	6/18	JASDAQ	Digital Information Technologies	Information/Telecommunications	246%	-34%
38	6/24	Mothers	Nakamura Choukou	Machinery	12%	46%
39	6/24	Ambitious	ECONOS	Retail	120%	-55%
40	6/25	TSE 1	Menicon	Precision Equipment	74%	-5%
41 42	6/25 6/25	TSE 2	FUJI DIE	Machinery	51% 102%	-22% -42%
43	6/29	Mothers JASDAQ	Fundely NAGAOKA INTERNATIONAL	Retail Machinery	41%	-42%
44	7/7	Mothers	Fujisan Magazine Service	Retail	126%	-27%
45	7/8	JASDAQ	Crestec	Other Product	82%	-36%
46	7/10	JASDAQ	HIRAYAMA	Precision Equipment	29%	-35%
47	7/16	Mothers	iRidge	Information/Telecommunications	429%	-22%
48	7/29	TSE 1	Dexerials	Chemical	-3%	-11%
49	7/30	Mothers	ITOKURO	Service	4%	-1%
50	8/4	Mothers	PCI Holdings	Information/Telecommunications	170%	23%
51	8/5	Q-Board	SK-HOME	Construction	14%	-15%
52	8/11	Mothers	Palma	Real Estate	71%	-50%
53 54	8/26 8/28	Mothers Mothers	C.E.Management Integrated Laboratory	Service Service	-2% -8%	44% 9%
55	8/28	TSE 2	Metaps Lacto Japan	Wholesale	-8% 0%	8%
56	8/31	Mothers	Aqualine	Service	22%	-33%
57	9/2	Mothers	STUDIOUS	Retail	20%	-12%
58	9/2	Mothers	BESTERRA	Construction	25%	166%
59	9/8	TSE 2	JESCO HOLDINGS	Construction	5%	-11%
60	9/14	Mothers	PIXTA	Retail	35%	-1%
61	9/15	Mothers	Internetworking & Broadband Consulting	Information/Telecommunications	251%	-28%
62	9/17	Mothers	Brangista	Service	44%	66%
63	10/15	Mothers	AppBank	Service	46%	109%
64		Mothers	Green Peptide	Pharmaceutical	-8%	-7%
65	10/23	Mothers Mothers	GMO Media	Service	101% 217%	1% -31%
66 67	10/27 10/28	Mothers	Partner Agent BALNIBARBI	Service Retail	130%	-31% -22%
68	11/4	TSE 1	Japan Post Bank	Bank	130%	-22%
69		TSE 1	JAPAN POST INSURANCE	Insurance	-	-
70	11/4	TSE 1	Japan Post	Service	-	-
71	11/19	Mothers	Anshin Guarantor Service	Other financial services	-	-
72	11/19	Mothers	Rozetta	Service	-	-
73		TSE	BELLSYSTEM24 Holdings	Service	1	-
74	11/27	Mothers	NEOJAPAN	Information/Telecommunications	-	-
75	12/3	Mothers	Investors cloud	Construction	-	-
-			Ta	T=	r	
76			Simplex Financial Holdings	Securities		
77	3/23	TOKYO PRO MARKET	LISON	Real Estate		

76	1/27	TOKYO PRO MARKET	Simplex Financial Holdings	Securities
77	3/23	TOKYO PRO MARKET	TSON	Real Estate
78	8/18	TOKYO PRO MARKET	SUZUKI SOLAR TECHNO	Construction
79	9/11	TOKYO PRO MARKET	Dentas	Service
80	10/15	TOKYO PRO MARKET	WBF Resort Okinawa	Service
81	11/25	TOKYO PRO MARKET	Triumph Corporation	Information/Telecommunications

(Source: TRADER'S WEB, TOKYO PRO MARKET, Prepared by VEC)



#### Independent venture capital plays leading role

Independent venture capital (VC) has started to play a leading role among VCs. As a result of successful preceding cases from VCs such as Globis Capital Partners, Global Brain and Incubate Fund, many venture capitalists are following suit. It is considered that venture investing arms associated with banks, securities companies and life and non-life insurance companies and other corporate-type of VCs do not offer sufficient gains to individual venture capitalists. This appears to have partly resulted in the growth of independent VCs. Due, in part, to the fact that preceding independent VCs have already covered startups in the IT sector, the emergence of VCs that make investments in sectors where companies are built onresearch results of universities has been noticeable.

Beyond Next Ventures (Chiyoda-ku, Tokyo) was established by Mr. Tsuyoshi Ito who, as the person in charge of academia-industry cooperation at JAFCO, had made investments in CYBERDYNE, a robot suit startup companies originating from Tsukuba University, and led the listing of the company on the stock exchange.

Leave a Nest (Shinjuku-ku, Tokyo), which mainly supports research-based startups, established a new VC jointly with euglena, a company that is known for the production of euglena microalgae, and SMBC Nikko Securities. With its extensive network, including universities and corporate researchers, Leave a Nest fundraised from Japan Tabacco, ROHTO Pharmaceutical, Mitsui Fudosan and other companies. The new VC will reportedly invest in "Real-Tech," a sector that encompasses both online and offline elements, such as robotics, IoT, bio, agriculture and energy. It seems that new independent VCs are likely to play a key role in this sector.

There are examples of successful entrepreneurs investing in startup companies. Tokyo Founders Fund (TFF), which was established in 2015, is comprised of prominent members. The Representative of TFF is former President of Spotlight Yo Shibata, and funds are jointly contributed by President of nanapi Kensuke Furukawa, President of Coach United Nobuhiro Ariyasu, President of peroli Ayataro Nakagawa, CEO of Chanoma Kiyotaka Kobayashi, COO of FreakOut Yusuke Sato, former President of mixi Yusuke Asakura and President of Livesense Taichi Murakami. Most of these entrepreneurs have sold their own companies, and have surplus funds. The purpose of investments is reportedly to learn about the trends of the Internet business. This is considered to be a new type of independent VC that is along the lines of angel investing.

On the other hand, establishing new funds with a significant amount of cash is also continuing. In the United States, large-scale unlisted startups with total market values reaching \$1 billion have emerged. As a response to this development, hedge funds and private equity funds have initiated venture investments. Parties related to this sector have also started to make preparations in Japan. However, the business environment is slightly unfavorable due to a slump in the stock market.



### The surge of valuations has peaked, and venture capitalists will become selective in the future

Over the last two or three years, the valuations of venture investments have been surging continuously. Recently, however, partly reflecting a slump in the stock market, the valuations have been gradually adjusted (according to the person in charge of investments at a listed Internet company). There were cases of companies whose share prices fell below the price level that was used at the time of capital increases when they were still unlisted. Accordingly, the review of the valuations is now progressing.

A venture manager who has just developed  $\alpha$ -version services said, "The valuation of my company is  $\pm 1$  billion. In the United States, there are companies that provide similar services whose valuations have exceeded  $\pm 30$  billion." Having received such an explanation, a partner of an independent venture capital firm answered, "We cannot make an offer at such a valuation when the company has not even generated sales," and turned down the proposal. Such stories were reportedly heard often over the last one or two years, a time when the bubble of venture stocks in Silicon Valley increased.

Even if experienced VCs turned down such businesses, certain government funds and corporate venture capital (CVCs) that were lacking experience but had funds often decided to invest in the businesses. Government funds and CVCs do so because they tend to prioritize the use of funds to budgeted levels. As a result, managers became even more aggressive. A vicious cycle started in this way, and valuations shot up to unrealistic levels.

"The general picture was like that until around last year, but as is to be expected, VCs have now become selective," said a person in charge of investments at a listed Internet company who has extensive investment experience. The direct catalyst was the share price trend of gumi, whose shares were listed on the exchange in December 2014. The share price has remained sluggish after the announcement of the downward revision of its results and other developments.

This trend was clearly visible in the valuation of Metaps, whose shares were listed on the exchange in August 2015, when it was treated as the star of startup companies. The share price after the listing even experienced a fall below the level of the share price that was used for fundraising carried out in February 2015. Metaps recorded operating losses in the terms ended in both August 2014 and August 2015. This has raised queries regarding the story that, even if making losses, as long as a company is considered to have growth potential, it will be able to raise a large amount of funds and things will go well for it anyhow once it is listed.

Cases where share prices fall to this extent immediately after listing were also found in 2000, when the Internet share bubble burst. At that time, the stock market slowed down severely, and it then also became difficult for unlisted startups to raise funds. The cases of a "downround" in which capital was increased based on the lower valuation were also noticeable. Market participants have begun to whisper that such a case will also occur soon in the current business environment.

"Changes in the listed market start affecting the fundraising of startup companies six months or a year later," said a person in charge of startups at an auditing company. Facing such a situation, based on reaction and reflection, reducing valuations in an irrational manner is not a good idea. It is believed that the extent of fluctuations in valuations will remain wide for the time being. "It is essential to make an effort to carefully study the fair value of each case," according to a foreign VC.

#### 2. Topics of the Growth Industry

Artificial intelligence has been attracting greater attention due to the significant improvements in computer performance and the advancement of information processing technologies. In addition, there has also been development of more sophisticated technologies related to sensors and driving equipment, which led to great advances in technologies related to the development of robots.

According to the Ministry of Economy, Trade and Industry, the size of the global market for industrial robots in 2011 was \$8.497 billion. In this market, the total value of shipments from Japanese enterprises amounted to \$4.267 billion, accounting for a 50.2% share. Moreover, the market size of the robotics industry in Japan in 2035 is forecasted to reach \(\frac{4}{9}\).7 trillion (approximately \(\frac{5124.4}{24.4}\) billion based on a rate of \(\frac{4}{78}\) per dollar, the average dollar/yen exchange rate in 2011). This includes not only industrial robots, but also robots in all other sectors (Ministry of Economy, Trade and Industry: *The 2012 Trend Survey on the Robot Industry Market*). The government has been supporting the promotion of the robotics industry through various measures, such as by establishing the Robot Revolution Council, to build up the robotics industry as a growth sector in Japan.

This environment has given rise to robotics startup companies like SCHAFT and CYBERDYNE. For these kinds of companies to succeed, they need to possess know-how about both hardware and software, along with technologies that combine these two aspects in developing robots. As a result, the hurdle is high for startup companies seeking to enter this sector. However, it appears that specializing in a particular sector enables startup companies to maximize their strengths.

The following columns of this report will introduce startup companies that are actually engaged in the development of robots. The first company is Life Robotics Inc., which aims to develop robots that cooperate with people. The company believes that the development of co-robots (collaborative robots) is suitable for startup companies that are able to take large risks. Another company is ispace technologies, inc., which aims to develop lunar exploration robots. The company believes that the software sector in the robotics industry is the sector in which startup companies are able to fully exert their capabilities. Interviews were held with the representatives of each company.



Startup Companies and Robot Development - Concept of Co-robots (Collaborative Robots) -

Life Robotics Inc. Founder and CEO/CTO Woo-Keun Yoon

Decision to establish a company with the aim of commercializing robots

As a senior research scientist at the National Institute of Advanced Industrial Science and Technology (AIST), I was involved in research related mainly to industrial robots and nursing care and welfare robots. I took a leave from the AIST in January 2014, and I am now fully committed to activities of Life Robotics Inc., a robotics startup company that was established in 2007.

While nursing care has gained an increasing amount of attention as a social issue and measures have been carried out for the nursing care of the elderly, I felt that welfare for the physically challenged has been overlooked. This led me to start undertaking research about nursing care and welfare robots, thinking that I might be able to help the physically challenged become independent. People who have problems in their legs can get around in a wheelchair as they go about their lives. However, life becomes much more difficult for people that develop problems with their arms. To help these people, I desired to develop robots that could perform the functions of human arms. This involved the development of co-robots (collaborative robots), with the basic concept of not only safely operating

alongside people, but also capable of being safely and easily controlled by people with no real knowledge of robots. As I continued my research and gradually started to form ideas for products, I found people who were eager to acquire them. However, the problem I faced was that AIST was a public research organization, and by nature it did not run businesses that sold products. Naturally, there were no sales staff members. I felt certain amount of frustration in that even if I was successful in my research, I would be unable to commercialize the results. I really began to question myself and wonder whether simply carrying out research on a product and waiting for someone to commercialize it was the right approach to take. This questioning motivated me to establish a startup company by myself.

#### Manufacturing industry and co-robots

Just as nursing care has become an important social issue, the shortage in workers in the manufacturing industry is now another issue that needs to be addressed. China, where manufacturers of developed economies have built up their operations, is about to enter a stage in which manufacturing dependent upon human resources is no longer able to maintain a competitive advantage due to the effects of higher labor costs. Southeast Asia has emerged as the region that will succeed China. However, the rapid pace at which labor costs are rising in Southeast Asia means that it will likely experience the same problems as China in the near future. The era of business models dependent on lower labor costs is coming to an end. Several years before the Obama administration, the United States adopted a policy of bringing the manufacturing industry back to US soil to solve this problem. Similar movements are now being seen in the EU. Partly due to the effects of the weak yen, there were emerging signs showing the manufacturing sector starting to bring back operations that had been moved overseas. On the other hand, given the falling working age population, labor shortages have also become especially serious in regional areas.

Currently, labor costs in developed economies are much higher than those in China and Southeast Asia. In this environment, one of the most effective measures for controlling costs and becoming more competitive in countries where labor costs are high is to introduce co-robots.

#### Co-robots are not replacements for people

Co-robots perform the simple repetitive tasks normally handled by workers. However, this does not mean that they actually replace workers because the intelligence level of these robots is very low. There was a time in the past when Toyota Motor promoted the automation of welding operations, but it has recently changed the policy and is now working to develop welders. Once automated operations are established, technologies stop improving. Unlike human beings, robots are not able to create technologies or carry out research. Robots are only able to be tools that support people, and in fact that is what they should be. If everything becomes automated, there is little likelihood that better technologies will be created in the future.

People are able to have robots handle operations that they do not want to carry out or find to be tedious. In doing so, people become able to focus on more sophisticated issues or matters that will improve their skills, which in turns helps technologies to further advance.

In short, the emergence of co-robots will never result in eliminating workers from the manufacturing line.

#### Realization of nursing care and welfare robots

Without the introduction of governmental policies, it will be difficult to develop a market for nursing care and welfare robots. Even if this kind of market is developed, in the current environment I believe that society is only able to accept relatively inexpensive robots for cost reasons. Moreover, if there is a need for people to look after these robots, it will be difficult for robots to become widespread. However, these robots are different from the robots that many people often imagine. From both the technological and cost perspectives, at the present time I do not think that we are capable of developing a robot like "Astro Boy" that can carry out tasks without relying on the assistance of people.

I have been developing nursing care and welfare robots since my days at AIST, and I have now realized that the actual target is robots that support backyard operations. Essentially, we must meet the needs for the systemization and automation of washing, cleaning, and other miscellaneous operations. When we succeed in doing this, I believe that people will be able to increase the amount of time they spend in contact (communicating) with other people.

#### Market size of industrial co-robots

The market size of industrial co-robots is very large because co-robots are expected to become the backbone of the manufacturing industry in the future. Companies in the United States and Europe have moved ahead of Japan and are actively developing co-robots. On May 13, 2015, Teradyne, Inc. acquired Universal Robots, a Danish startup company involved with co-robots. The company was reportedly acquired at a value of more than ¥30 billion. We have also seen the emergence of startup companies capable of raising enormous amounts of funds in excess of ¥10 billion.

In Japan, the focus has been on nursing care and welfare robots. If Japan continues to remain focused purely on these robots, it may fall behind the rest of the world.

#### Startup companies and robot development

The hurdle is very high for startup companies seeking to enter the field of robot development. Unlike the IT sector, robots involve complicated hardware factors, and thus the fusion of hardware and software technologies is essential to developing robots. In addition to the engineers who design machines and electric circuits, there is also a need for software engineers. The development of robots can only start when a company has more than one competent engineer with ample experience in these fields.

Repairing hardware after sales not only involves a significant amount of costs, but may also harm the reputation of the company. Unlike software, it is not possible to apply a certain number of bug fixes after the hardware is sold. Likewise, because the development of robots involves making and testing a number of trial products, the costs are much higher than those for software development. This also makes it difficult to for companies to enter the robot development sector.

Manufacturing startup companies are generally created by people who already have an established certain track record in related fields and are able to take advantage of their name value. This is particularly true in the robot sector. Mr. Yoshiyuki Sankai of CYBERDYNE uses the name value of his status as a professor at the University of Tsukuba, and I also use the name value of being associated with AIST.

Developing robots requires a certain amount of time to not only enhance the name value, but also to accumulate technologies. Including the period for basic research at the University of Tsukuba, more than 20 years have passed since CYBERDYNE was founded. "Roomba," a vacuum cleaning robot, was also developed by applying the results of research by Mr. Rodney Brooks, a former professor of the Massachusetts Institute of Technology (MIT) who spent more than 20 years at the institute. I have also accumulated more than 15 years of experience in research and development. So, while it can be said that most robotics startups are startups, in many regards some are not really startups when one considers how long they have been around.

#### Strength of startup companies

Startup companies have their own unique strength that the existing major companies do not. The strength is that they are able to take major risks. Because startup companies have really nothing to lose, they are able to boldly take large risks and act as leaders in releasing new products and services that bring about significant innovation in the world

For example, Fuji Heavy Industries (Subaru) introduced the first vehicles in the industry equipped with automatic break systems. Major automobile companies, such as Toyota, Honda and Nissan, also had automatic break system technologies, but they had decided not to introduce vehicles equipped with automatic break systems because they felt the risks of having to pay compensation and deal with boycott campaigns were too high in cases when malfunctions or accidents occurred. Despite these risks, Subaru decided to take a chance and work to increase its market share. The automatic break systems were accepted by society, and major companies soon began to follow in Subaru's footsteps. The approach Subaru adopted is the exact approach that startups would eventually adopt.

#### People who decide to take doctoral courses with the goal of establishing startup companies

In the United States, it is not unusual to see cases in which people take doctoral courses to establish startups. Aiming at establishing startups, they learn the world's top level technologies at universities, and then leave after they identify target markets. In Japan, most students who take doctoral courses aim to become researchers. There are very few cases in which students decide leave universities and venture out on their own. The same can be said at the AIST, to which I belong. For people with the AIST, pay is reasonably high, the research environment is good, and they are called *sensei* or a doctor by people and treated well wherever they go. There is no need to take any risks. Almost no

one leaves this wonderful research environment and works to establish a startup company.

Having said that, I feel that the situation has been gradually changing in Japan. There are a rising number of students who are determined to develop robots that are useful for society. Life Robotics also accepts competent students as interns, and some students have joined Life Robotics after turning down job offers from major companies. There are a growing number of staff members who left major manufacturing companies to join Life Robotics.

If more people take doctoral courses or join the AIST to pursue their desire to establish startup companies, we will see a dramatic change occur in Japanese society.

#### The first thing that needs to happen is for more hardware startups to be founded

The number of software startups has been rising in tandem with the expansion of the IT market. In contrast, the number of hardware startups is extremely low. The hurdle for entering the hardware startup company sector is high because businesses must be competitive from the time they are established. Considering this situation, I would like to see more hardware startups established by people spinning off from universities, research organizations, and manufacturing companies. Hopefully more engineers will think "if Woo-Keun Yoon can do it, then so can I," and establish their own startup companies.

Although startup companies are said to be booming, the level of investment in Japan is unfortunately much lower than what we see in the United States. Japan's GDP is approximately half of that of the United States, and investment in startup companies in Japan is only one tenth of the level in the United States. I do not think we can say startup companies are booming until the level of investment reaches at least the GDP ratio between the two countries, or approximately five times greater than the current investment level.

I believe that the future of Japan is in great peril. I am gripped by a sense of crisis, and fear that it will be too late to rebuild Japan unless the necessary measures are taken now while Prime Minister Shinzo Abe is working to revitalize the economy.

I personally think that it is difficult for startup companies to grow in the nursing care and welfare robot market, but my honest feeling is that somebody will overcome these difficulties in the future. I hope that competent startups will emerge and take an active role in the nursing care and welfare robot market.

I think we need to develop an environment that allows for the creation of numerous hardware and software startup companies that exhibit a world-class level of competitiveness and capable of applying this advantage to support Japan.



### Space Development Led by Startup Companies - Realizing People Living in Space by Using Robots -

ispace technologies, inc.
CEO & Founder Takeshi Hakamada
COO Takahiro Nakamura

#### ispace and Team HAKUTO

ispace technologies, inc. (ispace) has entered a joint research agreement with Professor Kazuya Yoshida from Tohoku University. Under the agreement, it currently manages Team HAKUTO, a group that seeks to carry out lunar exploration. The goal of ispace is to develop businesses that use robotics in space, and it is now recruiting individuals with a firm background in technology.

A number of volunteer staff members have also participated in Team HAKUTO, and they manage events and promotion through social networking services. Graduate students from Professor Yoshida's laboratory have taken part in the project as well.

The team is comprised of a variety of members. However, everyone shares the common goal of winning the Google Lunar XPRIZE (GLXP; a competition sponsored by Google for unmanned lunar robotic exploration in the private sector), so I have not experienced many problems in managing the team. I think that the most important aspect of managing the team is setting up an environment in which team members are able to remain freely engaged in activities.

In Japan, it is very difficult to raise funds for projects labeled with the term "space". ispace receives investments from venture capital (VC) firms, including Incubate Fund, and other investors, such as angel investors. However, these investments are not intended for Team HAKUTO. Instead of identifying itself with terms like "robots" and "space", Team HAKUTO has adopted a business model in which sponsors make investments in the advertising business. ispace plans to produce prototype products through Team HAKUTO, and in the future use them in the robotics business. ispace receives investments from investors who support this plan.

Guided by the concepts of "expand our planet" and "expand our future," we aim to achieve the dream of people living in space by using robots. In order for people to settle in space, we need to develop economic zones in space. To develop these economic zones, resources must be developed. To meet these needs, robots will be used to develop resources. This is the scenario that we depict.

Robot technologies can also be applied on Earth. Therefore, in the long-term prospective, I am thinking about the robotics business on Earth as well as in space. However, at present, I am not necessarily focusing on the Earth part of this business right now.

#### Hurdles startup companies face when they enter the robotics industry

We have seen a rising number of robotics startup companies join the ranks of manufacturing startup companies. Yet, it is harder for startups to enter the robotics industry than it is to enter the IT industry. In the case of IT development, the major barrier is securing people who can handle computers and programming. Moreover, we have seen the emergence of an environment in which even people that lack the most sophisticated technologies can handle programming.

In the robotics industry, people are not only required to have the knowledge of software but also hardware. In addition, they are required to have the ability to link these two technologies. For this reason, the hurdles for entering the robotics industry are much higher than those for the IT industry. Moreover, the higher costs that stem from the fact that the development of robots also involves manufacturing makes it harder for startup companies to enter the industry.

While much attention is given to hardware in robot development, the software used is also important. For example, a network that links individual robots is extremely important when using multiple small-scale robots to develop services. I believe that the importance of software will grow in the future. Existing companies that have been producing massive and heavy products are not accustomed to the development of services centered on software. In the robotics industry, I think that startup companies are able to create businesses in the software sector. The fact that costs of developing software are not as high as hardware is one reason why startup companies are able to enter the software sector more easily.

In the United States, Google is working to develop a Robot Operation System (ROS), a common platform of software parts for robots. I think that the development of the ROSs will potentially lower the entry hurdle, allowing a greater number of startup companies to enter the robotics industry more easily.

In addition, I believe we will see the development of platforms not only in software, but also in hardware to a certain extent. The three elements of robots are sensors, brains (computers), and operation devices. The basic function of robots is to sense objects through their sensors, use their computers to make judgments, and perform operations through their operation devices. People may think that computers are the main part of robots, but the function of operations is also important. I think there is a possibility that operation device platforms will be developed in the future.

#### Space industry and IT industry

Robots by themselves will not become its own major industry. They require other industries in which they can be utilized. With the participation of human resources from the IT industry, it will become possible to use robots to provide services and thus create added value. This, in turn, means that industries which use robots will emerge.

Similar developments are also taking place in the space industry. In the United States, Planet Labs, Inc. is working to launch hundreds of small satellites into Earth orbit and develop systems in which satellite photos are updated every hour. The goal of this project is not to launch satellites. Instead, this project presents a different application target, which is the provision of a real time ground map. Planet Labs, Inc. apparently claims that its business domain falls within the IT industry, not the aerospace industry.

The business model of the space industry is very similar to the one in the IT industry. The structure of the industry is organized in a way that allows space to be used as a means for obtaining and providing information.

#### Space development led by startup companies in the United States

The basic framework for space development up until now is for government organizations (NASA, JAXA, etc.) to spearhead projects and for them to use major companies as their subcontractors. However, in the future private companies are likely to be the leaders in space development. For example, the United States established a policy to commercialize space development in 2010. A major reason for this is that it has become difficult for the government to allocate part of the national budget for space development. Nevertheless, the government has adopted a policy that entrusts private companies with operations they are capable of handling, and when necessary NASA will acquire the services private companies provide. NASA has fully adopted the policy, and this move has encouraged a number of startup companies to enter the space industry. One successful example stemming from this development is Space Exploration Technologies Corporation (SpaceX). Planet Labs, Inc. is another startup company established through a spin-off by former NASA employees.

In Japan, the market size of the space industry is so small that there is very little room for startup companies to enter the market. Startup companies in Japan have always been much more stagnant than those in Silicon Valley. When it comes to space, businesses remain very rigid. In contrast to NASA's annual budget of approximately \$18 billion, the annual budget of JAXA in Japan is about \$2 billion. This difference perfectly reflects the differences between Silicon Valley and Japan when it comes to investing in startup companies. The United States also excels in the space industry partly because the country has a significantly large amount of funds coming from the military budget that is also used in space development. In Japan, because the budget scale is quite small, there is almost no room to allocate experimental funds to private companies. There was the case of the Maido No. 1 satellite, in which a project was carried out with cooperation of small-to-medium-sized companies, but thus far I believe there has been no attempt to adopt innovation through full-fledged cooperation with startup companies.

The space industry in Japan is a "space community." JAXA stands at the top of this community, and orders from businesses are placed with IHI and Mitsubishi Heavy Industries. This setup makes it difficult for parties outside the community to enter the industry. It also poses great dangers. Innovation takes place when ideas are combined with other sectors. As we have seen with the establishment of SpaceX in the United States by Mr. Elon Musk, a former employee of PayPal Inc., there are people and businesses from other industries that have entered the space industry. VCs in the United States invest in startup companies related to space because the space industry is gradually becoming an industry that uses software and is likely to grow in the future. An industry that excludes outsiders like the space industry does in Japan will miss out on opportunities to expand.

#### Misconception that consumer products cannot be used in space

Many people think that space development requires cutting-edge and special technologies, but that is a misconception. While it is true that space development requires more extensive technological expertise because space is different from the environment on Earth, space development up until now has been carried out by using large

amounts of taxes under government direction. As a result, it has always carried the restriction that failure was totally unacceptable. Thus, technological development has been conducted in an overly protective manner. However, it has become clear that it is not necessary to be so overly protective, and now existing technologies can be used as they are. For example, NASA successfully carried out an experiment in which they launched smartphones into space and took pictures of Earth. This means that consumer products can be used in space. Of course, it does not mean that all consumer products can be used in space, but there are a number of consumer products that can be used after a few small adjustments are made. Present consumer products are light and sophisticated, and this light weight means that less energy is needed to launch them into space. I believe that the availability of consumer products will bring greater flexibility to space development in the future.

In addition, the fact that consumer products can be used in a severe environment such as space suggests that they can potentially be used in environments on Earth where people cannot go, such as contaminated nuclear power plants and volcanos.

#### Robots that fulfill and expand the capabilities of human beings

A perfect and fully-automated robot is unlikely to be created overnight. I think the natural progression is for robots that stand in for and expand the capabilities of human beings, such as HAL from CYBERDYNE, to be widely used first. In the case of fully-automated robots, significantly higher levels of safety standards are required. Therefore, from the social perspective of introducing robots, I think that it will be faster to create robots that expand the capabilities of humans. I believe that the lunar robotic exploration machine we are developing is an example of a robot that fulfills and expands the capabilities of humans in the sense that it can enter places people cannot and monitor objects for people.

The capabilities that robots fulfill are not limited to physical aspects, but also extend to psychological aspects. For example, if robots can handle the excretion of waste in nursing care, the psychological burdens of both caregivers and the people receiving care will be reduced. This also means that robots can fulfill the psychological needs of humans

In short, robots do not fulfill all the things that people have been doing. Instead, I believe that they will slowly take on more activities in the future. This type of approach is considered to be better suited for startup companies that can operate with more flexibility than large-scale companies.

# Japan's technological capabilities and future outlook

I think that in general Japan's robot technologies have been making progress, although the degree of progress varies by sector. However, it seems that technologies are more concentrated in the hardware sector. In addition, in the United States, when demand from the military is on the rise, technologies make quick and substantial progress. This level of advancement is not seen in Japan at the present time.

Japan also has a tendency not to immediately appreciate the technologies it creates. This is perfectly demonstrated by the case of HAL, which was approved in Germany before it was approved in Japan. In our case, winning the GLXP Milestone Prize has also helped to enhance our presence in Japan.

Having said that, there are startup companies with superior technologies like SCHAFT that have been established in Japan. There is no doubt that the United States is also paying attention to Japanese robotics startup companies and closely monitoring potential opportunities to learn new technologies.

In the case of Japan, miniaturization is likely to be a key factor. Japan is extremely good at developing small parts. Small factories in Tsubamesanjo in Niigata Prefecture and in Ota-ku, Tokyo may achieve ground-breaking innovations in the future.

Looking at space development, the Cabinet Office of Japan is aiming to act as control tower. This commitment is reflected in the establishment of the Office of National Space Policy. The government appears to be aiming to develop the private space industry. However, because there is a limit to the plans the government can conceive on its own, lobbying efforts will play an important role in the future. In the United States, space-related startup companies actively lobby the government. For example, SpaceX urges the government to establish regulations that allow private companies to launch rockets. The lobbying efforts of Ansari X Prize have opened the road to space flights by private companies. It also appears to be conducting activities to gain approval for the ownership of space under federal legislation in order to pave the way for the resources development business in space. These are all the results of lobbying efforts of space-related startup companies.

The nature of the policies adopted by governments in the future and how private companies approach these official policies will also play an important part in the robot sector.

# 3. Support of the Government and Related Organizations for Startup Companies

One of the policy pillars of the Japan Revitalization Strategy (growth strategy) announced by the government in late June 2013 was support for startup companies.

The "Industry Revitalization Plan" was among three action plans set out in the growth strategy. The following venture support initiatives were listed in the plan under the promotion of startup investments and re-challenge investments by making the most of resources inside and outside Japan.

#### • Speeding up the restructuring of industries and accelerating startup businesses

Bold moves should be taken to discard old facilities, equipment and assets so that outdated facilities and equipment can be replaced with the state-of-the-art assets. R&D aimed at retaking a global lead should be accelerated. Funds, human resources, and facilities/equipment should be actively mobilized in growth sectors. Bold business restructuring should be pushed through by companies and industries to promote this turnover.

#### **KPI**

Raise the entry and exit rate to the 10% range, which is on a par with rates in the USA and the UK (from the current rate of around 5%), while ensuring that the firm entry rate exceeds the exit rate.

#### Venture Support Initiatives under the Industry Revitalization Plan

- Cultivating personnel who bear responsibility to create venture businesses and other new businesses, personnel who have mature judgment and supporting personnel
   Encouraging individuals to invest in business ventures (improving operation of the tax system for
- angel)
- O Encouraging the private sector to invest in business ventures (facilitating investment in startup companies using funds from the private sector, and promoting the effective supply of risk money by the Innovation Network Corporation of Japan)
- O Revising the personal guarantee system
- O Utilizing operating resources of existing companies (supporting spin-off and carve-out, and promoting open innovation)

In June 2015, the government announced the Japan Revitalization Strategy (Growth Strategy) 2015, revealing its plans to establish a venture ecosystem as a key policy measure in the revised strategy.

# • Establishment of a venture ecosystem

The progress of digitalization and networking has sparked significant and ongoing changes in global business models. To set off industrial restructuring that has an impact on the economy, the creation of new industries by startup businesses is especially important.

In particular, it is essential to develop competitive companies on a global scale. A mechanism (a global venture ecosystem) for creating global startup businesses needs to be established. Working through this mechanism, startup businesses tackle challenges in the global market from the domestic market, or establish overseas operations and bring innovation to the domestic market and domestic players.

# Venture Support Initiatives under the Japan Revitalization Strategy (Growth Strategy) 2015

O Establish new undergraduate and graduate school systems for formulation of international hubs for
innovation/venture creation.
O Silicon Valley-Japan Bridge Project (the Kakehashi Project).*
O Coordination with global venture ecosystems.
O New legislative measures to promote utilization IT.
O Develop global startups that will support the digital and network age.
O Develop R&D startup businesses and establish an ecosystem by utilizing Japan's strengths.
O Strengthen the functions of R&D companies and actively introduce the cross-appointment system.
O Promote the supply of funds for medium-to-long-term growth by using private funds.
O Promote the use of IT that will contribute to regional revitalization.

# \* Silicon Valley-Japan Bridge Project (the Kakehashi Project)

Prime Minister Shinzo Abe announced the Silicon Valley-Japan Bridge Project (Kakehashi Project) in the first part of the speech he gave at a symposium held on April 30, 2015 at Stanford University during his visit to Silicon Valley.

Project for a Bridge of innovation between Silicon Valley and Japan (in Japanese: Kakehashi)

Bridge for companies	Dispatch small-to-medium-scale companies and startup to sectors such as robotics, biotech, and medical care.  (200 companies are expected to be dispatched over a period of five years.)
Bridge for human resources	Dispatch human resources, such as business people in charge of new businesses at large companies and entrepreneurs.  (Around 120 people participated in a program in Japan, and 20 participants were dispatched in October 2015.)  [Refer to page I-34, "Program for Fostering Global Entrepreneurs").]
Bridge for opportunities	Hold business matching events and symposiums both in Tokyo and Silicon Valley.

(Source: Documents prepared by the Ministry of Economy, Trade and Industry)

As of September 30, 2015, the Program for Fostering Global Entrepreneurs has been launched. This program, which serves as a bridge for human resources, represents the first step forward in this project.

Over the past year, the government, particularly the Ministry of Economy, Trade and Industry (METI), has announced a variety of venture support initiatives. In addition to announcing the comprehensive initiatives listed below, METI has been providing venture support through the Organization for Small & Medium Enterprises and Regional Innovation, Japan, the Japan External Trade Organization, the New Energy and Industrial Technology Development Organization, the National Institute of Advanced Industrial Science and Technology, and the Information-technology Promotion Agency, Japan.

Government agencies other than METI have also promoted a wide range of venture support initiatives. See below for details on the activities of each government agency.

List of Venture Support Activities Carried out by the Government and Related Organizations

	Operator	Implementation Details				
	Economic and Industrial Policy Bureau New Business Policy Office	The Expert Meeting on Venture Business Proposals for Venture Policies at the Council for Industrial Competitiveness The Venture Business Creation Council Startup/large company collaboration events Program for Supporting the Creation of Venture Businesses that Tackle Cutting-edge Issues Program for Developing Global Entrepreneurs Angel Tax System Startup Company Investment Promotion System Network for Promoting Entrepreneurship Education at Universities and Graduate Schools Entrepreneurship Education Promotion Project				
	Small and Medium Enterprise Agency	Business Creation School Partial amendment of the Act on Ensuring the Receipt of Orders from the Government and Other Public Agencies by Small and Medium-sized Enterprises				
Ministry of	- 0	Funds to spur growth of startups Japan Venture Awards Provision of incubator facilities Operation of Venture Investment Navi website Operation of BusiNest, startup business and new business support facilities Operation of TIP*S, an event space				
Economy, Trade and Industry	Japan External Trade Organization (JETRO)	JETRO Innovation Program, a program to support intellectual property application businesses in Japan Program to support overseas applications by medium and small enterprises				
	New Energy and Industrial Technology Development Organization (NEDO)	Innovation Commercialization Venture Support Project New Energy Venture Business Technology Innovation Program R&D Venture Support Program Problem-solution Welfare Equipment Commercialization Development Support Program Innovative Manufacturing Industries Creative Collaboration and Promotion Project (contract project type) Program to Promote R&D for Bridging Medium and Small Enterprises Open Innovation Council				
	National Institute of Advanced Industrial Science and Technology (AIST)	Business development task force Carve-out projects Support system for AIST start-ups Investments in things such as AIST equipment, patent rights, etc.				
	Information-technology Promotion Agency, Japan (IPA)	Holding the MITOH Symposium				

	Operator	Implementation Details				
	Science and Technology Policy Bureau	Enhancing Development of Global Entrepreneur Program (EDGE Program)				
Ministry of Education,	Higher Education Bureau	Public-Private Innovation Program				
Culture, Sports, Science and Technology	Japan Science and Technology Agency (JST)	Creating STart-ups from Advanced Research and Technology (START) Support Program of Capital Contribution to Early-Stage Companies (SUCCESS) Award for Academic Startups Innovation Hub Development Support Program				
Ministry of Internal Affairs	Technology Policy Division, Global ICT Strategy Bureau	Special Framework for Creative People: (inno) vation Program I-Challenge! (ICT Innovation Creation Challenge Program)				
and Communications	National Institute of Information and Communications Technology (NICT)	Kigyouka Koshien - a business competition in which young people—including students of colleges of technology, universities, and graduate schools Kigyouka Expo - an event for ICT startups				
Ministry of Health, Labour and Welfare	Employment Security Bureau employment Insurance to people who prepare to					
Cabinet Office	Office for Promotion of Regional Revitalization	National Strategic Special Zone (Initiatives for business creation and starting)				
Ministry of Agriculture, Forestry and Fisheries	New Business Creation Division	Program to promote the creation of the sixth industry and other new industries (commercialization possibility survey) Sixth industry creation network activity subsidies (verification of the commercialization of new technologies, etc.)				
Government Affiliated Financial	Japan Finance Corporation	Capital loans High School Student Business Plan Grand Prix				
Institutions	Development Bank of Japan Inc.	DBJ Women Entrepreneurs New Business Plan Competition				
Public-private fund	Innovation Network Corporation of Japan	Funds to spur the growth of startups				
	Regional Economy Vitalization Corporation of Japan	Provision of funds to spur the growth of startup businesses, etc. that contribute to the vitalization of local economies and management support				
	Cool Japan Fund Inc.	Provision of funds to spur the growth of startup businesses, etc. related to the development of overseas demand				

In this section, the venture support measures that were implemented between FY 2014 and FY 2015 are listed (pioneering support measures, including those that have been implemented on a consistent basis, are also listed).

#### ■ Ministry of Economy, Trade and Industry

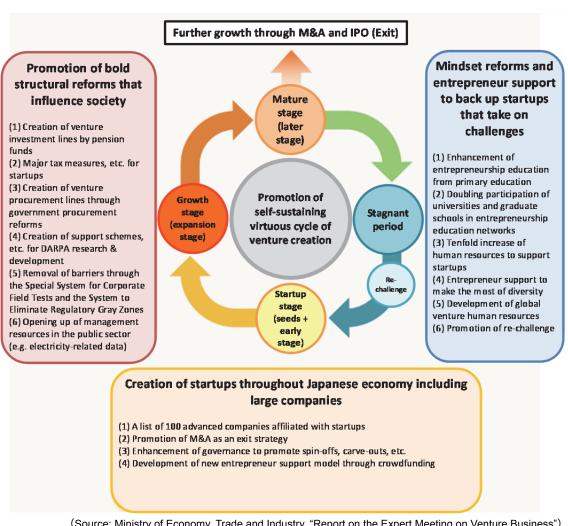
The New Business Policy Office of the Economic and Industrial Policy Bureau in the Ministry of Economy, Trade and Industry (METI) has engaged in a wide range of activities to support startups, including the management of the Expert Meeting on Venture Business, the planning, development and implementation of venture policies to achieve the key performance indicators set out in the Japan Revitalization Strategy, the establishment of the Venture Business Creation Council, the creation of venture support personnel networks, and the enhancement of tax systems to support startups.

#### 1. The Expert Meeting on Venture Business

From December 2013 to March 2014, METI held meetings with private expert panels on three occasions aimed at promoting the creation of venture businesses, and discussed issues related to current support measures for venture businesses and possible measures for overcoming challenges. The results of the discussions were compiled into a final report and released in April 2014.

1<sup>st</sup>: December 4, 2013 2<sup>nd</sup>: January 27, 2014 3<sup>rd</sup>: March 31, 2014 Schedule Report: April 14, 2014

#### [Report on Expert Meeting on Venture Business]



(Source: Ministry of Economy, Trade and Industry, "Report on the Expert Meeting on Venture Business")

Members of the Panel

Mr. Gen Isayama, President, WiL (former DCM partner)

Mr. Kazuhiko Toyama, Representative Director and CEO, Industrial Growth Platform, Inc.

Mr. Taizo Son, CEO, Movida Japan Inc.

Ms. Tomoko Namba, member of the board and founder, DeNA Co., Ltd.

Mr. Hirokazu Hasegawa, Professor, Waseda Business School, Waseda University

Mr. Yoshito Hori, President, Graduate School of Management, GLOBIS University

Mr. Takashi Mitachi, Co-chairman, Japan branch, Boston Consulting Group

Ms. Rika Yajima, president, aeru

# 2. Proposals for Venture Policies at the Council for Industrial Competitiveness (FY 2013 – 2014)

Based on the report by the Expert Meeting on Venture Business, Mr. Toshimitsu Motegi—Minister of Economy, Trade and Industry—introduced "Creating a Virtuous Cycle of Venture Creation" at the third joint meeting of the Council on Economic and Fiscal Policy and the Industrial Competitiveness Council of 2014 held by the Headquarters for Japan's Economic Revitalization, a control center responsible for the planning and overall arrangement of growth strategies. At the meeting, a decision was made regarding venture policies to discuss a revision of the Growth Policy under METI.

Ministry of Economy, Trade and Industry
Items Presented in "Creating a Virtuous Cycle of Venture Creation"

Item	Details
Creation of ventures by the entire Japanese economy	<ul> <li>(1) Creating the Venture Business Creation Council</li> <li>(2) Promoting M&amp;As as an exit strategy</li> <li>(3) Promoting spin-offs and carve-outs through enhanced governance, etc.</li> <li>(4) Accelerating venture investments by public-private funds and crowdfunding</li> </ul>
Implementation of bold structural reforms	<ul> <li>(1) Promoting the use of venture companies in government procurement</li> <li>(2) Implementing bold tax measures for ventures, etc.</li> <li>(3) Reconsidering the portfolio of public and quasi-public funds</li> <li>(4) Providing support to ventures through national projects</li> </ul>
3. Human resources: Mindset reforms and entrepreneur support to back up ventures that take on challenges	<ol> <li>(1) Entrepreneurship education from the primary school level</li> <li>(2) Practical entrepreneurship education at universities and graduate schools</li> <li>(3) Increasing venture support personnel tenfold</li> <li>(4) Changing mindset through venture award programs</li> <li>(5) Entrepreneur support by leveraging diversity</li> </ol>

(Source: "Creating a Virtuous Cycle of Venture Creation" (April 16, 2014, Report to Minister of Economy, Trade and Industry Toshimitsu Motegi) explained at the third joint meeting of the Council on Economic and Fiscal Policy and the Industrial Competitiveness Council, the Headquarters for Japan's Economic Revitalization)

### 3. Establishment of the Venture Business Creation Council

A report was compiled by the Expert Meeting on Venture Business (mentioned in item 1 above) in April 2014. Minister of Economy, Trade and Industry Yuko Obuchi announced the establishment of this council at the Conference for Commemorating the Establishment of the Venture Business Creation Council in September 2014, and indicated that it would tackle the challenge of developing an environment in Japan for facilitating many startups and their growth, an issue cited in the report. The Venture Business Creation Council aims to create a virtuous cycle of venture creation in Japan by facilitating collaboration between large/middle market companies and ventures under the broad vision of society as a whole taking on new challenges.

The council aims to create a major social movement for venture creation by inviting participation from

venture support institutions such as major companies, startup companies, VC, attorneys, accountants, and tax accountants, financial institutions, universities, and government affiliated institutions to provide a forum for holding business matching events and exchanging information on human resource development programs.

In January 2015, the Venture Business Creation Council hosted the commendation ceremony of the First Nippon Venture Awards. Prime Minister Shinzo Abe presented the Prime Minister's Award to euglena Co., Ltd.

# 4. Startup/Large Company Collaboration Events

METI hosted or sponsored the following events from FY 2014 to FY 2015 as part of its activities to support venture businesses.

Venture Support Events by the Ministry of Economy, Trade and Industry

Name of Event	Date	Venue	Remarks			
Conference for Commemorating the Establishment of the Venture Business Creation Council The Second Tokyo Innovation Leaders Summit	September 2014	Toranomon Hills	Hosted by METI. Announced the establishment of the Venture Business Creation Council  Hosted by the Tokyo Innovation Leaders Summit Committee, supported by METI. A business matching event where 97 large companies and 447 next-generation ventures gathered			
Nippon Venture Awards Commendation Ceremony  New Business Creation Support Conference & Connect!	January 2015	The Hotel New Otani	Of the 153 applications nationwide, one company was selected for the Prime Minister's Award (Nippon Venture Award), two companies were selected for the METI Minister's Awards, and two companies were selected for the Special Jury Awards.  Hosted by the Venture Business Creation Council, METI, JNB, and NBC, and sponsored by the National Institute for Policy Studies, and the Japan Innovation Network. An event organized around the themes of "open innovation" and "new business creation"			
The Third Tokyo Innovation Leaders Summit	October 2015	Toranomon Hills	Hosted by the Tokyo Innovation Leaders Summit Committee, supported by METI. A business matching event where 112 large companies and 488 next-generation startups gathered			

# 5. Program for Supporting the Creation of Venture Businesses that Tackle Cutting-edge Issues (FY 2014 supplementary budget)

METI invited applications for a team that supported entrepreneurs from FY 2014 to FY 2015. The selected supporters have implemented a model business to support Seed stage startups and have created support networks, while also sharing expertise on providing support within the working group.

Invitation of Applications for Venture Supporter Team

Item	Details						
Program description	- Creating a supporting personnel working group (WG) as a platform for						
	personnel who are experts in providing Seed stage support						
	- WG supporters implement a model business to support Seed stage startups						
	- Disseminating achievements and issues of model businesses and training						
	skilled support personnel						
	- Dispatching venture executives, support personnel, etc. to college courses						
Supporting personnel	- Consists of supporters such as VC, consultants, and incubators						
working group	- Implementation of a model business to support Seed stage startups; sharing						
	the progress of model businesses at the working group meeting that is held						
	roughly four times a year; reporting results and issues of support activities						
	to the supporter meeting						
Application period	1 <sup>st</sup> application: February 10, 2015 to March 6, 2015						
	2 <sup>nd</sup> application: May 11, 2015 to May 29, 2015						
Responsible office	New Business Policy Office, Economic and Industrial Policy Bureau, Ministry						
	of Economy, Trade and Industry						

(Source: Invitation of Applications for Venture Supporter Team regarding the Program for Supporting the Creation of Venture Businesses that Tackle Cutting-edge Issues)

# 6. Program for Fostering Global Entrepreneurs (FY 2015 initial budget)

The program aims to develop entrepreneurs who create new businesses with ambitious goals, such as developing operations in the global market and solving social issues, and in-house entrepreneurs who are engaged in the development of new businesses in large companies and other organizations.

Invitation of Applications to the Program for Fostering Global Entrepreneurs

Item	<b>Details</b>
Program objective	- Developing core human resources that will be involved with the next generation of innovations by providing opportunities for acquiring effective methods and mindsets for creating innovations to entrepreneurs who create new businesses with ambitious goals, such as developing operations in the global market and solving social issues, and in-house entrepreneurs who are engaged in the development of new businesses in large companies and other organizations
Program description	<ul> <li>120 participants passed the primary selection and participated in programs in Japan six times. 20 of these participants were selected and dispatched to Silicon Valley.</li> <li>Experienced business persons participated in the program in Japan as lecturers and mentors. The participants learned the skills and the know-how to innovate through business and organizational reforms.</li> <li>In the Silicon Valley program, the participants presented business plans that they created and prepared to mentors and entrepreneurs from Silicon Valley. Through dialogues simulating real life situations, the participants were able to practice the skills that they had gained in the program in Japan.</li> </ul>
Application period	From May 1, 2015 to May 31, 2015
Responsible office	New Business Policy Office, Economic and Industrial Policy Bureau, Ministry of Economy, Trade and Industry

#### 7. Angel Tax System

The angel tax system provides tax incentives to investors who make angel investments in startup companies that meet certain requirements.

Benefit A (for investments in companies less than three years old): Amount of investment in venture is deducted from taxable income for the year

\* The limit on the amount of investment is up to 40% of taxable income or ¥10 million.

Benefit B (for investment in companies less than 10 years old): Amount of investment in venture is deducted from capital gain on stock sales for the year

\* There is no limit on the amount of investment.

In the event of a loss from sale of stock, investors may offset losses from selling stock in the enterprise against other capital gains (losses can be carried over for up to three years)

\* Applicable when acquiring new shares issued by companies meeting certain requirements

Considering that the adoption of the angel tax system is not increasing as expected, METI is promoting the system by implementing a series of initiatives, including the renewal of the Angel tax system website and the development of Angel tax system assessment sheets.

#### 8. Startup Company Investment Promotion System

The system gives preferential tax treatment to companies that provide funds to startup companies through qualified VC funds with hands-on support skills. More specifically, 80% of investments made in startups are deductible as a loss reserve.

To date, METI has approved three specified new business investment plans based on the Industrial Competitiveness Enhancement Act for venture funds. (For more details, see the Ministry of Economy, Trade and Industry website.)

# 9. Network for Promoting Entrepreneurship Education at Universities and Graduate Schools

With the aim of increasing the quality of entrepreneurship education in Japan, METI, together with university/graduate school lecturers and business persons, organized the Network for Promoting Entrepreneurship Education at Universities and Graduate Schools. The network shares information on teaching techniques and materials, as well as promotes collaboration between universities/graduate schools and industry. As a part of this effort, the network is holding the University Venture Grand Prix, a nationwide business plan competition for schools providing entrepreneurship education.

# 10. Entrepreneurship Education Promotion Project

METI manages the program designed to improve entrepreneurship education and increase the number of individuals that possess the entrepreneurial spirit—which is characterized by ambitious disposition, sense of creativity, and inquisitive mind—and other abilities by providing primary and junior high school students opportunities to meet local entrepreneurs and by carrying out model initiatives. In managing the

program, METI works through private groups and other organizations to cooperate with primary and junior high schools and municipalities to support forward-looking initiatives, such as providing opportunities to meet with entrepreneurs and visit workplaces.

Invitation of Applications for the Entrepreneurship Education Promotion Project

Item	<b>Details</b>
Program	The program aims to develop and increase the number of individuals that possess
objective	the entrepreneurial spirit (ambitious disposition, sense of creativity, inquisitive mind,
	and other abilities) and the qualities and capabilities of entrepreneurs (information
	collection and analysis capabilities, judgment, execution capabilities, leadership,
	communication capabilities, and other capabilities) by carrying out
	entrepreneurship education at primary and junior high schools. In addition, METI
	will broadly promote the importance of and know-how related to entrepreneurship
	education, and develop a sustainable and practical model of entrepreneurship
	education that is rooted in the local community.
Program	METI invites applications from schools nationwide for entrepreneurship education
description	model schools (or model school consortiums) to promote entrepreneurship
	education at primary and junior high schools nationwide, and it provides support for
	labor costs (including costs for advisors and lecturers), teaching materials costs
	and other costs related to the implementation of the entrepreneurship education
	program.
Application	From May 15, 2015 to June 12, 2015
period	
Responsible	New Business Policy Office, Economic and Industrial Policy Bureau, Ministry of
office	Economy, Trade and Industry

### ■ Small and Medium Enterprise Agency

#### 1. Business Creation School

To increase the business entry rate from the current rate of 4.8% to the 10% range, which would be on a par with rates in the USA and the UK, the Small and Medium Enterprise Agency has been managing the Business Creation School nationwide since FY2014. The Business Creation School aims to help tomorrow's entrepreneurs acquire basic knowledge and to develop business plans. The agency continues to manage the school in FY2015, and plans to offer approximately 270 courses nationwide.

#### Entrustment Re-entrustment Support **Private** Support Entrepreneur, organization etc. organization, etc. **[Entrepreneur Education Business]** Government Support **College and** Private organization, etc. elementary/ Entrustment Collaboration junior high school students Universities, elementary/junior high schools, local entrepreneurs, local support organizations, etc.

# **[Business Creation School]**

(Source: Ministry of Economy, Trade and Industry FY 2015 Ministry of Economy, Trade and Industry budgetary request document, the Small and Medium Enterprise Agency)

FY2014 Achievement of Business Creation School

Item	Details
Summary	Providing support for business startups by preparing curriculums such as business management, marketing, accounting, tax, and others for people who are planning to start businesses in the region or those who try to make a second attempt, and providing them with support to acquire the knowledge and know-how necessary when starting a business and developing business plans
School location/	Number of schools opened: 222 schools nationwide
Number of courses	Number of courses offered: 282 courses in total
Number of participants	Approximately 3,200
Participation fees	Basic course/Female entrepreneur course: ¥10,800 (tax included) Course for those making a second attempt: ¥5,400 (tax included)
Operation	Outsourcing management to regional educational institutions, chambers of commerce, and other institutions FY 2014 Regional Business Startup Promotion Support Business Management Office (located within Pasona Inc.)
Responsible office	Startup/New Business Promotion Division, Business Support Department, Small and Medium Enterprise Agency

(Source: Small and Medium Enterprise Agency)

# 2. Partial Revision of the Act on Ensuring the Receipt of Orders from the Government and Other Public Agencies by Small and Medium-sized Enterprises (Public Sector Demand Act)

The Small and Medium Enterprise Agency submitted the Bill for the Act for Partial Revision of the Act on Ensuring the Receipt of Orders from the Government and Other Public Agencies by Small and Medium-Sized Enterprises and Other Acts (Act for Demand Creation for SMEs) in the 2015 ordinary Diet session. The act was enacted in July.

Partial Revision of the Public Sector Demand Act

Item	Details
Purpose of the revision of the act	Encouraging newly launched SMEs to receive orders from the government and public agencies to expand the virtuous economic cycle throughout the entire country
Main outline	To expand opportunities of SMEs established within ten years (newly-established SMEs) to receive orders  - Stipulating that special consideration be given to newly-established SMEs  - Formulating a government contracting policy that stipulates the setting of a numerical goal for contracts to be concluded with newly-established SMEs and the formulation of measures for increasing these opportunities  - Stipulating that ministries and agencies formulate a policy for making a contract with newly-established SMEs, based on the respective situation of each individual ministry  - Stipulating that ministries and agencies publicize the contracted orders with newly-established SMEs
Date enacted	July 7, 2015
Date enforced	August 10, 2015
Responsible office	Fair Trade Division, Business Environment Department, Small and Medium Enterprise Agency

(Source: Small and Medium Enterprise Agency)

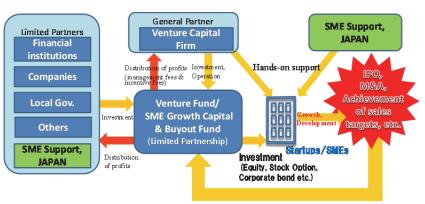
#### ■ Organization for Small & Medium Enterprises and Regional Innovation, JAPAN (SME Support, JAPAN)

In July 2010, the Organization for Small & Medium Enterprises and Regional Innovation, JAPAN (SME Support, JAPAN) realigned its fund investment business into the Venture Fund, SME Growth Capital & Buyout Fund, and SME Turnaround Fund.

Among these three funds, the Venture Fund and SME Growth Capital & Buyout Fund invest in startup companies. SME Support, JAPAN invests a maximum of 50% (no more than ¥6 billion) of individual funds as an LP.

With private investments in VC funds remaining slow since the Lehman Brothers collapse, SME Support, JAPAN continues to invest in VC funds and is playing a substantial role as an LP.

Venture Fund and SME Growth Capital & Buyout Fund Operated by SME Support, JAPAN



profit on sale of securities / Distribution of profits etc.

(Source: SME Support, JAPAN)

#### 1. Fund formation:

SME Support, JAPAN invests a maximum of 50% of total funds as an LP.

#### 2. Investment targets:

Small and midsized enterprises that are at the development or early growth stage and aim to achieve new growth or expansion.

#### 3. Support mechanism:

Providing funds through such measures such as acquisition of equity and bonds with warrants.

### Trend of SME Support, JAPAN's Fund Investments

[Total value of funds invested in SME Support, JAPAN]							(¥ millions)	
	2008	2009	2010	2011	2012	2013	2014	End of September 2015
Venture Fund (Before FY 2011)		11,842						
Ganbare! SME Fund	4,040		1,120					
Regional Support Fund	1,000							
Venture Fund (Since FY 2011)				3,000	3,270	935	4,750	3,136
SME Growth Capital & Buyout Fund			5,400	58,855	42,492	61,289	75,866	48,291
Total	5,040	11,842	6,520	61,855	45,762	62,224	80,616	51,427

[SME Support, JAPAN Capital commitment]					(¥ millions)			
	2008	2009	2010	2011	2012	2013	2014	End of September 2015
Venture Fund (Before FY 2011)		5,000						
Ganbare! SME Fund	2,000		520					
Regional Support Fund	500							
Venture Fund (Since FY 2011)				1,400	1,500	450	2,000	750
SME Growth Capital & Buyout Fund			1,300	21,000	14,400	26,440	24,150	18,190
Total	2,500	5,000	1,820	22,400	15,900	26,890	26,150	18,940

Note 1: Values in the figure exclude those of the SME Turnaround Fund, Industrial Reconstruction Corporation Fund, and Business Continuity Fund.

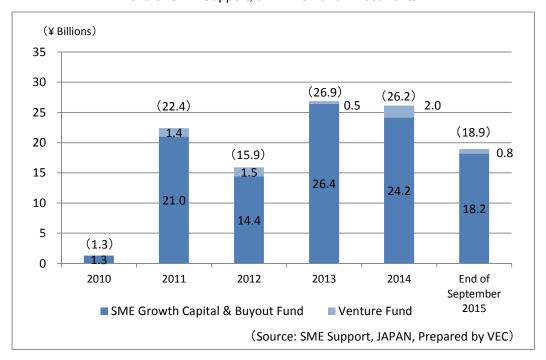
(Source: SME Support, JAPAN)

Note 2: Values in the figure are the amounts when SME Support, JAPAN entered investment contracts.

Note 3: Values in the figure are rounded amounts.

Note 4: Value of SME Growth Capital & Buyout Fund includes certain investments in buyout funds.

# Trend of SME Support, JAPAN's Fund Investments

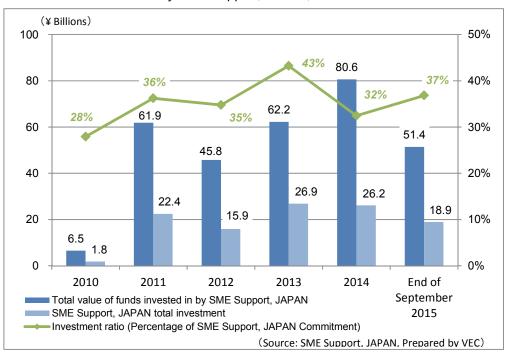


Note 1: Values in the figure exclude those of the SME Turnaround Fund, Industrial Reconstruction Corporation Fund, and Business Continuity Fund.

Note 2: Values in the figure are the amounts when SME Support, JAPAN entered investment contracts.

Note 3: Value of SME Growth Capital & Buyout Fund includes certain investments in buyout funds.

#### Total Value of Funds Invested by SME Support, JAPAN, and Total Value of its Investments



Note 1: Values in the figure exclude those of the SME Turnaround Fund, Industrial Reconstruction Corporation Fund, and Business Continuity Fund.

Note 2: Values in the figure are the amounts when SME Support, JAPAN entered investment contracts.

Note 3: Value of SME Growth Capital & Buyout Fund includes certain investments into buyout funds.

Summary of Funds Invested by SME Support, JAPAN

Fund type	Number of funds		
Fund type	FY2014	FY2015	
Venture Fund	1	1	
SME Growth Capital & Buyout Fund	10	9	
Total Value of Funds (¥ Billions)	94.9	51.9	

Note 1: Values for FY2015 are based on the end of September.

Note 2: Values exclude those of the SME Turnaround Fund, Industrial Reconstruction Corporation Fund and Business Continuity Fund.

(Source: SME Support, JAPAN)

In addition to investing in funds, SME Support, JAPAN has been providing a wide range of support since FY 2001, including the presentation of awards to outstanding startups, the provision of incubator facilities, and the delivery of VC/VB information. It has also been engaged in new support programs since FY2014, including the management of BusiNest, a startup support and new business support facility, and TIP\*S, a base for exchanging information and activities that functions as a venue to support new business creation.

Startup Support Activities of SME Support, JAPAN

Item	Details	Responsible office
Award	Holding the Japan Venture Awards	Startup and Venture
	An annual award program established to honor startup company	Business Support
	executives (15th in 2015)	Division, Business
	(http://j-venture.smrj.go.jp/outline/index.html)	Support Department
Provision of	A list of business incubators	
incubator	(http://www.smrj.go.jp/incubation/054808.html)	
facilities		
Provision of	Operation of "Venture Investment Navi" website	Fund Management
VC/VB	(https://vdb.smrj.go.jp/viis/REF_BP001_SCR002.action)	Department
information		
Provision of	Management of BusiNest, a startup support and new business support	Tokyo SME University
facilities	facility (Providing office spaces, a variety of seminars, and other	
	services at Tokyo SME University)	
	(http://businest.smrj.go.jp/)	
Holding of	Management of TIP*S, a base for exchanging information and activities	Human Resources
events	that functions as a venue to support new business creation	Department Planning
	(Providing a venue for training through a range of events, workshops	Division, Human
	and seminars)	Resource
	(http://tips.smrj.go.jp/)	Development Group

(Source: SME Support, JAPAN)

# ■ Japan External Trade Organization (JETRO)

The Japan External Trade Organization (JETRO) supports small-to-medium-sized companies and startup companies that possess industrial property rights by helping them establish business models to develop their overseas operations, including license contracts that make use of their intellectual property.

Overview of JETRO Innovation Program, a Japanese intellectual-property-based program that provides support for creating businesses

(All the items listed below are examples of initiatives taken in FY2015)

Item	Details
Applicable	Small-to-medium-sized companies and startup companies that possess or have applied for
industry/company	industrial property rights (patents, utility models and designs) and possess innovative
	technologies, products, and business models; subject to screening.
Free programs	Domestic seminars (organized as needed through the year)
(examples)	Silicon Valley-style intellectual property-based business seminar
	[June 15 to 17, 2015 (Tokyo, Osaka and Fukuoka)]
	Introduction of know-how on intellectual property-based marketing presentations and
	other matters. Mr. Mark Kato from Silicon Valley and Mr. Michio Hisanaga from the
	National Center for Industrial Property Information and Training (INPIT) were invited.
	Silicon Valley style business development training
	(i) Boot Camp
	[July 7 to 10, 2015 (Tokyo) and July 13 to 16, 2015 (Osaka)]
	Four-day intensive training, conducted all in English, covering measures for preventing
	technology leaks, measures for using intellectual properties, the preparation of KPI,
	marketing, pitches, and other matters. Mr. Alfredo Coppola and Ms. Gigi Wang of
	USMAC, an accelerator in Silicon Valley, and two other presenters were invited.
	(ii) Communication Training
	[August 26 to 28, 2015 (1st session) and August 31to September 2, 2015 (2nd session)]
	Three-day intensive training examining the themes of communication, customer
	approach, and presentation methods. Mr. Steve Pollock from Silicon Valley and Mr.
	Tomohiro Kida from Tokyo were invited.
	Overseas mentoring
	(i) Provision of comprehensive mentoring for more than 16 hours at overseas locations
	through the selection of designated mentors that best fit the participating companies
	(package method).
	(ii) Provision of individual advice by more than one mentor who plays a key role in Silicon
	Valley. Coordinated with the travelling schedules of participating companies (Ad hoc
	method)

	TechCrunch / Disrupt SF     Participation in an event in San Francisco that is globally recognized as a gateway to
Paid programs	success.
(examples)	TechMatch (JETRO hosting type)
	Participation in JETRO's unique matching events that are jointly held in Silicon Valley with
	USMAC, an accelerator.
Other regions	Mentoring and events are also held in Singapore and Israel (Tel Aviv) in the second half of
	FY2015.
Application	First application deadline: June 26, 2015. Second application deadline: August 25, 2015.
period	Applications will also be accepted in the second half of FY2015 (as of September 2015).
Responsible	Innovation Promotion Division, Intellectual Property and Innovation Department
office	

(Source: JETRO Innovation Program; website: http://www.jetro.go.jp/services/innovation/)

To facilitate strategic overseas applications (for patents, utility models, designs and trademarks) by medium and small-sized companies and other organizations, JETRO supports those with plans to develop overseas operations and other activities by subsidizing half of the expenses they incur when submitting overseas applications that are identical to the applications in Japan.

# Overview of the Program to Support Medium and Small-sized Companies and Other Organizations in Submitting Overseas Applications

(All the items listed below are examples of initiatives taken in FY2015)

Item	Details
Applicable	Small-to-medium-sized companies, startups, private business operators, and other
industry/company	organizations with plans for submitting applications to overseas patent offices that are
	identical to the applications (for patents, utility models, designs, and trademarks) in
	Japan on which the corresponding overseas developments are based.
Service details	If applications that are identical to the applications that have already been made to the
and expenses	Japan Patent Office are made to overseas patent offices by December 2015 after
	approval is given under this program, a portion of the expenses (expenses subject to
	subsidies) related to overseas applications—such as application fees to overseas
	patent offices, domestic and overseas agency fees, and translation fees—is subsidized.
	Subsidies rate: Half of the expenses subject to subsidies (Fractions less than ¥1,000
	are rounded off.)
	Maximum amount: Maximum amount per company: ¥3 million
	Maximum amount per application: Patents - ¥1.5 million
	Utility models, designs and trademarks: ¥600,000
	Misappropriation countermeasure trademarks*: ¥300,000
	* Misappropriation countermeasure trademarks: Applications of trademarks to counter
	abusive applications (misappropriated applications) by third parties
Application	First application deadline: June 30, 2015
period	Second application deadline: August 26, 2015
Responsible	Overseas Application Desk, Intellectual Property Division, Intellectual Property and
office	Innovation Department

(Source: JETRO overseas application expenses subsidies (Program to support medium and small-sized companies and other organizations in submitting overseas applications) http://www.jetro.go.jp/services/ip\_service\_overseas\_appli.html)

# ■ New Energy and Industrial Technology Development Organization (NEDO)

The New Energy and Industrial Technology Development Organization (NEDO) provides the following startup support programs:

- 1. Innovation Commercialization Venture Support Project
- 2. New Energy Venture Business Technology Innovation Program
- 3. R&D Venture Support Program
- 4. Problem-solution Welfare Equipment Commercialization Development Support Program
- 5. Innovative Manufacturing Industries Creative Collaboration and Promotion Project (contract project type)
- 6. Program to Promote R&D for Bridging Medium and Small Enterprises

# 1. Innovation Commercialization Venture Support Project

The project invited applications under the theme of commercial development as described below.

Item	<b>Details</b>
Project	As part of the "Platform for Supporting the Creation of New R&D-based Business," the
purpose	project provides support for commercializing excellent technical seeds and promising unused technologies owned by R&D-based startup companies
Requirements	An application must satisfy the following conditions:
of project	1. It must be a new and highly innovative commercial development that can contribute to
	the creation of innovation to enhance competitiveness and achieve sustainable
	economic growth; and
	2. There must be a concrete plan based on which commercialization will be achieved
	within approximately three to five years after the project period.
Subsidy rate	Two thirds or less
Subsidy	15 million yen to 500 million yen
amount	
Project period	From the date (late May 2014) of the decision of a grant to February 28, 2015
Application	From January 15, 2014 to March 3, 2014
period	
Responsible	Platform Group, Innovation Promotion Department
office	

# 2. New Energy Venture Business Technology Innovation Program

The program invited applications for technology development as described below.

Item		Details	
Project	Invite applications for technology development based on potential technology seeds owned		
purpose	by SMEs, etc. (including start	up companies), focusing on the	e importance of the renewable
	energy sector		
Phase	Phase A:	Phase B:	Phase C:
	Feasibility study	Basic research	Application research and
			development
Project	Up to 1 year	Up to 1 year	Approx. 1 year
period			
Contract	Up to ¥10 million/theme	Up to ¥50 million/theme	Up to ¥50 million/theme
type	Commission: NEDO burden	Commission: NEDO burden	Subsidy: NEDO burden ratio
	ratio 100%	ratio 100%	2/3
Application	First application: From March 16, 2015 to April 17, 2015		
period	Second application: From August 31, 2015 to October 1, 2015		
Responsible	Platform Group, Innovation Promotion Department		
office			

# 3. R&D Venture Support Program

# 3-1. Implementation of Commercialization Feasibility Studies, etc. by startup innovators

Receiving hands-on instruction from business Catalyzers (people who support commercialization), NEDO invited applications from entrepreneur candidates (startup innovators: SUIs) who aim to create mega venture companies in the future. In FY2014, there were 420 applications, of which 14 applications were accepted.

Item	Details (The details of support in FY2014 and FY2015 are different.)
Overview of	- Inviting applications from entrepreneur candidates who have business plans to use
support	specific technical seeds
	- Conducting activities aimed at launching an R&D venture company and turning it into a
	mega venture company in the future
Details of	[FY2014]
support	1. Provision of hands-on support for business startup activities by a business Catalyzer
	(person who supports commercialization) who is commissioned by NEDO
	2. Annual payment of up to ¥15 million per team for the maximum period of two years,
	in principle, for activities conducted by SUIs as commercialization feasibility studies
	3. Provision of support with monthly payment of up to ¥542,000/person (equivalent to
	the payment of ¥6.5 million/year) as labor costs of SUIs who are engaged in
	commercialization feasibility studies
	Matching with outside technology seeds
	5. Matching investors and partners
	Provision of co-working space that SUIs can use at NEDO Headquarters (Kawasaki)
	[FY2015] Number 2 above was integrated with number 3. Numbers 1, 4, 5 and 6 remained unchanged from FY2014.
	2. Annual payment of up to ¥35 million (including labor costs) per team for one year, in
	principle, for activities conducted by SUIs as commercialization feasibility studies
Project	[FY2014] In principle, up to two years from the date designated by NEDO
period	[FY2015] In principle, up to one year from the date designated by NEDO
Application	[FY2014] From July 18, 2014 to August 18, 2014
period	[FY2015] From September 18, 2015 to October 23, 2015
Responsible	Platform Group, Innovation Promotion Department
office	

# 3-2. Support of the Commercialization of Seed-stage R&D Ventures

In FY2015, NEDO started the program in which it approves venture capital, seed accelerators, and other organizations (hereinafter the "VC, etc.") both in Japan and overseas that support R&D ventures. It assists the commercialization development of seed-stage R&D ventures in which the VC, etc. invest. NEDO firstly approved the VC, etc. (12 approvals), and then made a public invitation for seed-stage technology-based startups (STSs), which are operators who are subject to subsidies, to apply.

Item	<b>Details</b>
Project	Creating and fostering STSs that will become mega venture companies in the future by
purpose	providing R&D that STSs require and the funds and assistance necessary for
	commercialization through the cooperation between the VC, etc. and NEDO. The
	program targets the vitalization of activities in Japan of the VC, etc. that possess global
	networks and the strengthening of the eco-system.
Requirements	- Businesses that have specific technological seeds, are considered to have R&D
of project	elements, and are able to create innovation for strengthening competitiveness
	- It is necessary for businesses to have business plans that use specific technological
	seeds and have a plan to receive investments from approved VC, after the relevant
	VC completes checking of the relevant business plans, for the amount no less than
	15% of 85% of the subsidy application amount (no more than 85% of the expenses
	subject to subsidies) stated on subsidy application sheets.
	- Businesses must not have received investments of ¥100 million or more from
	professional investors at the time of application.
Subsidy rate	85% or less
Subsidy	Up to ¥70 million for two years
amount	
Project period	From the date (late October 2015) of the grant is decided to February 28, 2017
Application	From July 9, 2015 to August 31, 2015
period	
Responsible	Platform Group, Innovation Promotion Department
office	

# 3-3. Technology Commercialization Program (TCP)

NEDO also carries out a program for researchers and other parties in universities and companies in Japan who aim to develop R&D ventures. This program provides training on the preparation of business plans and pitch events, which are opportunities to present business plans prepared for investors and other parties.

Item	Details
Project	Aiming to promote the commercialization of results of research at universities and other
purpose	organizations, develop entrepreneurs, and identify startup companies developed in universities
Project	The program provides training for the preparation of business plans and individual
details	coaching of mentors, such as venture capitalists and former entrepreneurs. It also
	provides selected participants with opportunities to participate in pitch events in Japan
	and overseas in which they are able to present business plans that they have prepared
	through the training and coaching of investors and other parties.
Subsidy	The program is purely for training and thus there are no subsidies or other forms of
rate	monetary support.
Subsidy	
amount	
Project	From late July 2014 to March 31, 2017
period	
Application	From July 1, 2015 to August 28, 2015
period	
Responsible	Platform Group, Innovation Promotion Department
office	

(Source: NEDO Open Innovation Platform)

# 4. Problem-solution Welfare Equipment Commercialization Development Support Program

Item	Details
Project	Aiming to promote commercial development of welfare equipment and improve the
purpose	quality of life of the elderly, mentally, and physically disabled persons and care givers by providing subsidies to companies and other organizations that develop welfare
	equipment
Requirements of project	<ol> <li>Welfare equipment subject to research and development. Equipment must feature new and technological development elements in that there are no other products with identical function and design.</li> <li>The relevant businesses meet user needs and satisfy the purpose of the subsidy grant, such as the existence of research and development elements.</li> <li>Commercialization development of the relevant welfare equipment is expected to support nursing care, self-reliance, and participation in society, improve physical substitution functions, and bring about other specific positive effects. A market with a certain scale is expected for the product, while the relevant welfare equipment possesses economic advantages from the perspective of the users.</li> <li>The relevant businesses do not receive other subsidies or assistance funds.</li> </ol>
Subsidy rate	Up to two thirds (however, the subsidy rate for so-called deemed large-scale companies is 50%)
Subsidy amount	Up to ¥20 million per year (the maximum amount of ¥60 million in three years)
Project period	Up to 3 years (until March 20, 2018)
Application period	From May 1, 2015 to June 30, 2015
Responsible office	Platform Group, Innovation Promotion Department

# **5. Innovative Manufacturing Industries Creative Collaboration and Promotion Project** (contract project type)

Item	Details		
Project	In the Innovative Manufacturing Industries Creative Collaboration and Promotion		
purpose	Project  Strategic Fundamental Technologies Advancement Support Program		
	(so-called the Supporting Industry Program) that is carried out by the government (the		
	Small and Medium Enterprise Agency), the program supports R&D and the trial product		
	development of SMEs, etc. that are likely to be commercialized by using the capabilities		
	of bridging research institutions and that are in line with the themes designated by the government		
Requirements	Contracted projects are required to satisfy conditions as given below:		
of project	1. Projects are required to be R&D and trial product development stages based on the		
	Specific R&D Plan that is approved under the Act on Enhancement of Small and		
	Medium Sized Enterprises' Core Manufacuturing Technology.		
	2. Projects are required to be related to R&D that is in line with themes designated by		
	the government and R&D and trial product development that will help solve policy		
	issues, such as development that is likely to help SMEs participate in public		
	procurement and other opportunities.		
	3. Projects are required to be those in which bridging research institutions that have		
	been confirmed by the NEDO are participating as partners of SMEs, etc. for joint		
	research and other activities.		
Contract type	Commission: NEDO burden ratio 100%		
Contract	Up to ¥100 million per year (the minimum amount of ¥10 million)		
amount			
Project period	Two years or three years		
Application	From June 26, 2015 to July 31, 2015		
period			
Responsible	Platform Group, Innovation Promotion Department		
office			

# 6. Program to Promote R&D for Bridging Medium and Small Enterprises

Item	Details		
Project	The program aims to support the technological enhancement and the innovation of		
purpose	production methods and other matters of individual small-to-medium-sized companies		
	and startup companies. It does so by assisting business of companies that receive the		
	transfer of technological seeds from bridging research institutions, commercializing		
	these seeds, and promptly and steadily commercializing technologies that		
	small-to-medium-sized companies and other organizations possess by using the		
	capabilities of bridging research institutions. In addition, because NEDO assists with		
	initiatives such as those described above, it encourages bridging research institutions		
	to take active measures to strengthen their functions.		
Requirements	New and highly innovative commercialization development that is carried out by SN		
of project	etc. associations, and other organizations that fall under any of the items given below		
	through joint research with bridging research institutions:		
	SMEs that are defined in the Small and Medium-sized Enterprises Basic Act		
	2. Enterprises whose sales are less than ¥100 billion or those with less than 1,000		
	employees		
	3. Associations and other organizations that satisfy the sales standards and employee		
	standards described in 2 above		
Contract type	Subsidy: NEDO burden ratio 2/3		
Subsidy	Up to ¥100 million in total over the project period (the minimum amount is ¥15 million)		
Project period	From the date the grant is decided (end of September 2015, scheduled) until February		
	28, 2017 (plan)		
Application	From May 26, 2015 to July 22, 2015		
period			
Responsible	Platform Group, Innovation Promotion Department		
office			

# **Japan Open Innovation Council**

In addition to the previously mentioned programs, NEDO has established a Japan Open Innovation Council, which aims to help spark innovation and strengthen the competitiveness of Japanese industries. It has been carrying out a variety of studies and research and has been holding events related to open innovation.

Item	Details	
Purpose and	The Japan Open Innovation Council was established on February 12, 2015 to promote	
summary	the open innovation initiatives of private business operators, and help spark innovation	
	and strengthen the competitiveness of Japanese industries. There are 16 Directors	
	(private business operators), including Chairman Kunio Noji (the Chairman of the	
	Board of Komatsu Ltd.). NEDO holds a secretariat position.	
Activities	Sharing examples of promoting open innovation with other members	
	(i) Holding large-scale seminars and events	
	(ii) Holding workshops by theme (Themes: Business-academia collaboration,	
	corporate internal management, coordinator training, etc.)	
	(iii) Holding events (NEDO pitch) aiming at creating business projects	
	2. Understanding the trends of open innovation in other countries	
	Nationwide awareness and promotional activities	
	4. Policy proposal activities	
	5. Preparation of an open innovation white paper	
	6. Examinations of the promotion of open innovations in key sectors	
	Promotion of exchanges with universities, research institutions, and other organizations	
	8. Other activities that contribute to achieving the goals of the council	
Number of	380 (as of October 30, 2015)	
members		
Members	Private companies (members), organizations other than business corporations, and	
	individuals who are approved by the Board of Directors (supporting members)	
Membership	Free	
fees		
Application	Dispatching a membership application sheet that is downloadable from the website to	
method	the secretariat (applicable at any time)	
Website	http://www.nedo.go.jp/news/other/ZZCA_100013.html	
Responsible office	General Management Group, Innovation Promotion Department	

#### ■ National Institute of Advanced Industrial Science and Technology (AIST)

The National Institute of Advanced Industrial Science and Technology (AIST) has been engaged in creating and supporting startup companies with the aim of publishing leading-edge research findings in a timely manner. The AIST has been developing frameworks for startup development and support since FY2002. Innovation Center for Technology Transfer and Startups is now responsible for promoting the Business Development Task Force and operating the support system for AIST start-ups and in-kind investments.

Overview of Operations of Innovation Center for Technology Transfer and Startups

Item	Details	
Business Development Task Force	A project to build startup businesses based mainly on	
	technology seeds created at AIST through cooperation	
	between researchers and business personnel	
Carve-out Project	A project for the Task Force to build startup businesses by	
	accepting companies' technology seeds and human	
	resources	
Support system for AIST start-ups	Partial granting of intellectual property rights to AIST	
	start-ups, setting exercise rights for exclusive use,	
	reduction of usage charge of facilities and equipment,	
	consultations with experts	
Investment in-kind including equipment, patent rights, etc. in AIST start-ups		
Featuring AIST start-ups on the "TECH Meets BUSINESS" website		
https://unit.aist.go.jp/ictes/tmb/		

(Source: National Institute of Advanced Industrial Science and Technology)

Innovation Center for Technology Transfer and Startups was established in April 2015 through the integration of the Intellectual Property Division Technology Licensing Office. The aim of the center is to promote commercialization in line with the characteristics and nature of each technological seed. The center is an organization that handles the two commercialization methods in an integrated fashion: (i) commercialization through technology transfer through the licensing of intellectual properties and other matters to the existing companies, and (ii) commercialization through the creation of technology transfer startups.

Innovation Center for Technology Transfer and Startups has held the Venture Development Report Meeting (formerly: Taskforce Report Meeting) since FY2005 to report the results of its startup development and support activities. https://unit.aist.go.jp/ictes/ci/tf/tf-review.html)

### ■ Information-technology Promotion Agency, Japan (IPA)

The Information-technology Promotion Agency, Japan (IPA) introduces outstanding young IT human resources who have been discovered and trained under the Exploratory IT Human Resources Project (MITOH program), along with their technologies and services. It held the MITOH Kaigi (MITOH conference) in which there were discussions on the creation of an eco-system where innovation continues to take place in a variety of fields in the economic society.

#### Overview of the MITOH Kaigi

Item	Details			
Purpose	The conference introduces challenges taken by young creators who have graduated from			
	the MITOH program, examining what is required to further promote the discovery, training			
	and development of exploratory human resources through industry and academic			
	cooperation with the aim of creating an eco-system in which innovations continue to tak			
	place in a variety of fields in the economic society.			
Number of	150			
participants				
Venue	Auditorium, Roppongi Academy Hills			
Date	March 10, 2015			
Responsible	Center for Innovative Human Resources, IT Human Resources Development Headquarters			
office				

(Source: Information-technology Promotion Agency, Japan, Program for the MITOH Kaigi)

In addition, also on March 10, past participants in the MITOH program and related parties took the lead in establishing the Mitou Foundation and started activities. The IPA and the Mitou Foundation will cooperate with each other and participate in initiatives, including the promotion of exchanges among MITOH creators and the development of an environment in which the creators are fully able to exercise their capabilities.

#### ■ Ministry of Education, Culture, Sports, Science and Technology

As part of its venture support business, the Ministry of Education, Culture, Sports, Science and Technology has been carrying out the Enhancing Development of Global Entrepreneur Program (EDGE Program) and the Public-Private Innovation Program.

# • Enhancing Development of Global Entrepreneur Program (EDGE Program)

The Ministry of Education, Culture, Sports, Science and Technology has been carrying out the Enhancing Development of Global Entrepreneur Program (EDGE Program) since FY2014. The aim of this program is to develop an environment (innovation ecosystem) that fosters human resources who undertake the challenge of establishing startups and creating innovations based on the results of research and development, and gives rise to a series of innovations. Under this program, the ministry supports universities that develop advanced global entrepreneurs and innovative human resources, targeting graduate school students and young researchers with expertise, by cooperating with private companies, such as venture capital firms, and overseas institutions. In FY2014, proposals from 13 universities were selected and each university started its own program.

Institutions Selected by the Enhancing Development of Global Entrepreneur Program (EDGE Program)

Names of Programs	Names of Institutions
The University of Tokyo Global Innovation Human Resources	The University of Tokyo
Development Program	
Startup Practice Program for Developing Innovative Leaders	Tokyo University of
	Agriculture and Technology
Team Oriented Cross-border Entrepreneur Development Program	Tokyo Institute of Technology
Development and Implementation of an I (Medical), Ko (Technology),	Shiga University of Medical
and Design Cooperative Global Entrepreneur Development Program	Science
(iKODE Program)	
Global Technology Entrepreneurship Program (GTEP)	Kyoto University
-World Tekijuku Groundbreakers-	Osaka University
Global Entrepreneurs in Internet Of Things (GEIOT)	Nara Institute of Science and
	Technology
Hiroshima Entrepreneurship Program	Hiroshima University
Kyushu University Global Innovation Human Resources Development	Kyushu University
and Ecosystem Creation Program	
Sustainable Innovation and Ecosystem Base Founded upon the	Osaka Prefecture University
Cooperation between Regional Industry, Academia, and Government:	
Scientific Technology Driven Innovation Creator Development Program	
Keio EDGE Global Innovator Program	Keio University
WASEDA-EDGE Human Resources Development Program –	Waseda University
Establishing a Kyosokan Innovation Ecosystem -	
Innovation Architect Development Program	Ritsumeikan University

(Source: Science and Technology Policy Bureau, the Ministry of Education, Culture, Sports, Science and Technology)

# Public-private Innovation Program (Promotion of public-private research and development for commercialization)

A cabinet decision on "Emergency Economic Measures for the Revitalization of the Japanese Economy" was made in January 2013, and the FY 2012 supplementary budget was submitted and passed by the Diet on January 28, 2013.

The Industrial Competitiveness Enhancement Act, which went into effect in April 2014, has enabled national universities, etc. to invest in VC funds that satisfy certain requirements.

Investment of ¥100 Billion in National Universities under the Public-private Innovation Program

Making ¥100 billion investments in four national universities with high research capabilities and experience in joint research as part of the FY 2012 supplementary budget

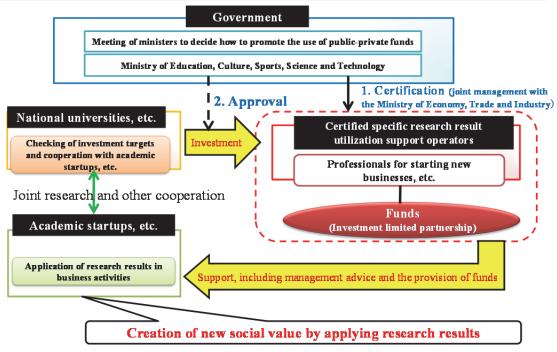
- Investments by university (total of ¥100 billion)
- 1. University of Tokyo: ¥41.7 billion, 2. Kyoto University: ¥29.2 billion,
- 3. Osaka University: ¥16.6 billion, 4. Tohoku University: ¥12.5 billion

University	Amount	Status of Applications for Approval	
1. University	¥41.7	O No applications for approval to invest in VCs had been made as of the end of	
of Tokyo	billion	September 2015	
2. Kyoto	¥29.2	An application for approval to invest in Kyoto University Innovation Capital Co.,	
University billion		Ltd. was made; the Public-Private Innovation Program, National University	
		Corporation Evaluation Committee exchanged opinions on September 3, 2014.	
		Kyoto University Innovation Capital Co., Ltd. was established on December 22,	
		2014.	
3. Osaka	¥16.6	O An application for approval to invest in OSAKA University Venture Capital Co.,	
University	billion	Ltd. was made; the Public-Private Innovation Program, National University	
		Corporation Evaluation Committee exchanged opinions on September 3, 2014.	
		OSAKA University Venture Capital Co., Ltd. was established on December 22,	
		2014.	
		The Specific Research Result Utilization Support Program Plan related to the	
		No.1 Investment Limited Partnership, under which OSAKA University Venture	
		Capital Co., Ltd. was an unlimited liability partner, was approved on June 8,	
		2015.	
		A No.1 Investment Limited Partnership was established on August 21, 2015.	
		○ ¥300 million was invested in Microwave Chemical Co., Ltd. on September 30,	
		2015.	
4. Tohoku	¥12.5	An application for approval to invest in Tohoku University Venture Partners was	
University	billion	made; the Public-Private Innovation Program, National University Corporation	
		Evaluation Committee exchanged opinions on November 4, 2014.	
		Tohoku University Venture Partners was established on February 23, 2015.	
		The Specific Research Result Utilization Support Program Plan related to the	
		No.1 Investment Limited Partnership, under which Tohoku University Venture	
		Partners was an unlimited liability partner, was approved on June 26, 2015.	
		O A No.1 Investment Limited Partnership was established on September 3, 2015.	

(Source: Ministry of Education, Culture, Sports, Science and Technology materials)

# **Outline of National University Investment System**

O Under the Industrial Competitiveness Enhancement Act, the system has been revised to enable national universities, etc. to invest in startup support companies, etc. that satisfy certain requirements. (Effective on April 1, 2014)



(Source: National University Investment Symposium documents)

### ■ Japan Science and Technology Agency (JST)

As part of its venture support activities, Japan Science and Technology Agency (JST) has engaged in the Program for Creating STart-ups from Advanced Research and Technology (START), the Support Program of Capital Contribution to Early-Stage Companies (SUCCESS), the Award for Academic Startups, and the Innovation Hub Construction Support Program led by national research and development agencies.

## • Program for Creating STart-ups from Advanced Research and Technology (START)

The JST Department of Industrial-Academic Collaboration manages the Program for Creating STart-ups from Advanced Research and Technology (START), which provides support for academic startup companies.

## • Support Program of Capital Contribution to Early-Stage Companies (SUCCESS)

The JST Support for Entrepreneurship Office launched the Support Program of Capital Contribution to Early-Stage Companies (SUCCESS) in April 2014. The program invests in and/or provides human/technical support to start-up companies that are finding practical applications for the output of JST-funded R&D. The program aims to attract private sector funds by making JST a shareholder of startup companies. In FY2014, the program made two investments. In FY2015, it made one investment at the end of September 2015.

Item	Details						
Investment	Those satisfying both of the following conditions are eligible:						
target	1. Startup companies that are finding practical applications for the output of						
	JST-funded R&D						
	2. Companies at an early stage of development						
Investment	1. Investable assets:						
details	Money and intellectual property/research facilities owned by the JST						
	2. Number of investments: Approx. two to five per year						
	3. Investment limits:						
	Investment ratio: In principle, 1/2 of total voting rights						
	Investment amount: ¥500 million/company in cumulative investments						
Responsible	Support for Entrepreneurship Office, Department of Business Innovation						
office	Development, Japan Science and Technology Agency						

(Source: JST website (http://www.jst.go.jp/entre/outline.html))

## • Award for Academic Startups

The Award for Academic Startups is a new award program started in FY 2014.

JST and New Energy and Industrial Technology Development Organization (NEDO) held the 2015 Award for Academic Startups ceremony at Tokyo Big Sight in August 2015.

The award program recognizes startups launched by universities that utilize the results of their R&D and are expected to thrive in the future. In addition, the program awards universities and companies that have contributed to the startups' growth.

Item	Details					
Purpose	Facilitating business startups using the results of R&D from universities, etc.,					
	engaging in activities after business launch, and supporting universities and					
	companies with university-operated startups					
Applicable parties	Academic startups (Definitions as described in 1 through 4 below)					
	Startups established by using the patents of universities and other					
	organizations*					
	2. Startups established by using the results of research by universities and other					
	organizations other than patents					
	3. Human-resources-transfer startups established by mainly professors, staff					
	members, and students of universities and other organizations					
	4. Investment-and-management-support startups that are supported by					
	universities and other organizations					
	Awards are also presented to organizations and companies that have made					
	significant contributions to the growth of the startups.					
	* Universities and other organizations					
	National, public and private universities, colleges of technology, national and					
	public research institutes, national research and development agencies, and					
	non-profit corporations such as public interest corporations					
Application period	From May 15, 2015 to June 25, 2015					
Date/venue of	August 27, 2015 / Tokyo Big Sight					
award ceremony						
Responsible office	Support for Entrepreneurship Office, Department of Business Innovation					
	Development, Japan Science and Technology Agency					
	Innovation Promotion Department, New Energy and Industrial Technology					
	Development Organization					

(Source: JST website (http://www.jst.go.jp/aas/))

# • Innovation Hub Construction Support Program Led by National Research and Development Agencies

This is the program in which the national research and development agencies\* lead industry and research organizations, such as universities, in the creation of innovation by concentrating R&D resources on the themes that have been set out. The agencies work to fully analyze the trends and needs in the market, and establish and promote strategies as an open innovation hub. JST supports innovative initiatives taken by such national research and development agencies.

## Themes Adopted in FY2015

Agencies	Details of programs			
National Institute for Information-integration Substances and Materials Development In				
Materials Science				
Japan Aerospace	Open Innovation Hub for Expanding Humanosphere and Domain of Activity			
Exploration Agency	through Solar System Frontier Development			

(Source: JST website (http://www.jst.go.jp/ihub/))

<sup>\*</sup> Former R&D independent administrative agencies: Renamed in April 2015

## ■ Ministry of Internal Affairs and Communications

The Ministry of Internal Affairs and Communications has provided support to human resources who undertake unique, ambitious and high-potential ICT technical issues, in order to create disruptive and global-scale value in the ICT sector. In addition, the Ministry of Internal Affairs and Communications is providing support to startup companies, etc. with the goal of commercializing innovative technical ideas, and VCs, etc. supporting companies in the ICT sector.

Special Framework for Creative People: (inno) vation Program

Item	Details
Purpose	Providing support to human resources who undertake unique, ambitious and
	high-potential ICT technical issues, in order to create disruptive and global-scale value in
	the ICT sector
Applicable	Individuals who take up the challenge of unique, ambitious, and high-potential technical
persons	issues, in order to create disruptive and global scale value in the globally unpredictable
	ICT sector where new technologies and ideas are generated every day; those who are not
	afraid of the failures that will create a path to achieving goals; applicants are limited to
	those who satisfy the following conditions:
	(1) Persons who have completed compulsory education
	(2) Persons who have Japanese nationality
Number of	About 10 cases
cases to be	
approved	
Support period	1 year
Research	¥3 million (upper limit) + indirect costs (30%)
expenses to be	
covered	
Responsible	SCOPE Office, Technology Policy Division, Global ICT Strategy Bureau
office	

(Source: (inno) vation website (http://www.inno.go.jp/))

I-Challenge! (ICT Innovation Creation Challenge Program)

Item	Details				
Purpose	Promoting business development support and R&D support in an integrated manner by				
	using the expertise of commercialization and other know-how of private companies, such				
	as VCs, for startup companies, etc. with the goal of creating new businesses by using				
	innovative technical ideas in the ICT sector.				
Applicable	[Startup companies, etc. with the goal of commercializing innovative technical ideas (R&D				
persons	institutions)]				
	- Small and medium enterprises specified under the Small and Medium-sized Enterprises				
	Basic Act				
	- Public interest institutions and other organizations, including universities specified under				
	the School Education Act				
	[VC, etc. providing support to R&D institutions (Commercialization support institutions)]				
	- Small and medium business investment and consultation companies specified under the				
	Small and Medium-sized Enterprise Investment Business Corporation Act				
	- Investment LPs specified under the Limited Partnership Act for Investment, etc.				
Number of	About 3 to 5 cases				
cases to be					
approved					
Support period	1 year				
Research	R&D institutions: Up to ¥100 million (including indirect costs (30% or less))				
expenses to be	Subsidy rate: SMEs 66%				
covered	Universities, etc. 100%				
	Commercialization support institutions: Up to ¥10 million (including administrative costs)				
	Subsidy rate: 66%				
Responsible	Research Team, Technology Policy Division, Global ICT Strategy Bureau				
office					

(Source: Ministry of Internal Affairs and Communications website (http://www.soumu.go.jp/menu\_seisaku/ictseisaku/ictR-D/ichallenge/))

## ■ National Institute of Information and Communications Technology (NICT)

The National Institute of Information and Communications Technology organizes the ICT Mentor Platform\* and holds Kigyouka Koshien for students to support ICT startups. It also holds the Kigyouka Expo for general participants.

### \* ICT Mentor Platform

To close the three gaps (businesses, funds, and human resources) that are believed to prevent commercialization in the ICT sector, the ICT Mentor Platform serves as a platform in which people who are actively engaged in operations in the ICT industry and other industries are organized. It consists of the National Institute of Information and Communications Technology ICT Mentor Platform Mentors, connecting mentors with regions and young human resources.

## Overview of Kigyouka Koshien

Item	Details						
Project	The Kigyouka Koshien is a business competition in which young people—including						
description	students of colleges of technology (kosen), universities, and graduate						
	schools—selected from around the country compete by making presentations with the						
	spirit of entrepreneurship on ICT products/services that they have developed and						
	have improved with the help of the mentors. In FY2014, 11 teams participated in the						
	competition.						
Date	March 3, 2015						
Organizer	National Institute of Information and Communications Technology						
Participants	Approximately 190 persons, including teachers and students						

(Source: National Institute of Information and Communications Technology website; NICT NEWS No.451 APR 2015)

## Overview of Kigyouka Expo

Item	Details						
Project	The Kigyouka Expo is an event, in which ICT startups nationwide engage in activities						
description	to build an affluent and vibrant society by using ICT. Startups present unique new						
	businesses (products/services) and seek matches for primarily business alliances,						
	funding, sales channel expansion, and securing human resources. In FY2014, 10						
	companies made presentations.						
Date	March 4, 2015						
Organizer	National Institute of Information and Communications Technology						
Participants	Approximately 190 persons, including those from large companies, ICT companies in						
	Tokyo, and investment companies and parties related to regional support groups						

(Source: National Institute of Information and Communications Technology website; NICT NEWS No.451 APR 2015)

### ■ Employment Security Bureau, Ministry of Health, Labour and Welfare

On July 22, 2014, the Ministry of Health, Labour and Welfare issued a memo to clarify that the basic allowance for employment insurance may be paid when preparing for or considering starting up new businesses during job-seeking periods.

In the "Japan Revitalization Strategy" revised in 2014 and approved by the Cabinet on June 24, 2014, the government committed that it will, as part of its activities to accelerate ventures and business startups, provide employment insurance benefits to people who are preparing for or are considering starting up new businesses during their job-seeking periods after leaving their companies. The intent was to eliminate concerns that entrepreneurs may have about the destabilization of their lives when starting up a business.

### Japan Revitalization Strategy Revised in 2014 (P. 21)

IV. Major Policy Measures in the Revised Strategy

1. (1) 3) Accelerating industrial restructuring, ventures, and promoting the provision of funds for growth

The government will also implement fine-tuned measures, including the promotion of startup companies' participation in government procurement and the provision of employment insurance benefits to people who are in the process of starting new businesses during their job-seeking periods.

### ■ Cabinet Office, Government of Japan

The Cabinet Office, Government of Japan has been carrying out regulatory reforms and other measures in the National Strategic Special Zone in a comprehensive and focused manner. The measures include a variety of initiatives related to venture support.

## 1. Outline of the National Strategic Special Zone

### (1) Characteristics of the system

The National Strategic Special Zone is a system that is positioned as a breakthrough in leading the overall reform of regulations, including so-called hard-rock regulations, in the focused period, a period up to FY2015, to promote the creation of bases for global economic activities. The government has previously carried out regulatory reforms by developing Special Zones for Structural Reform and Comprehensive Special Zones. However, the National Strategic Special Zone is forcibly carrying out regulatory reforms by introducing two structures that the existing special zone systems did not offer.

The first characteristic is a system in which the government does not merely take a passive role. The existing special zone system is a system in which the government designates special zones by approving applications from local municipalities that are prepared based on proposals from each region. Within this framework, the government only takes a passive role. In contrast, the National Strategic Special Zone system has a structure in which each special zone has an area conference that is comprised of three groups of parties: the Minister of State for the National Strategic Special Zones, the heads of related local municipalities, and the representatives from the private sector. The minister visits each region and directly receives proposals and requests through the conference. A number of area conferences have already been held frequently, and a large number of specific plans (area plans) that include bold regulatory reforms have been approved.

The second characteristic is that the National Strategic Special Zone system has a structure in which the Prime Minister takes leadership in achieving regulatory reforms. In this structure, there is a Special Zone Advisory Council that is chaired by the Prime Minister and made up of a total of 11 members, including related ministers and experts in the private sector, as well as ministers in charge of the corresponding regulations. When necessary, the participants openly discuss the pros and cons of regulatory reforms, with the Prime Minister making the final decisions. The Special Zone Advisory Council has held 16 meetings to date and, with the strong leadership of the Prime Minister, it has efficiently promoted bold regulatory reforms in a visible manner.

## 2. Initiatives Related to Starting and Establishing Businesses in the National Strategic Special Zone

## (1) Policy issues of each special zone

In the National Strategic Special Zones and National Strategic Special Zone Plans (Prime Minister Decision: May 1, 2014; Partial revision: August 28, 2015), which stipulate the goals and policy issues of each special zone and basic matters related to programs that each specific zone is expected to carry out, the policy issues described below have been identified (items highlighted are those related to starting and opening businesses).

Policy Issues of Each Special Zone

Area	Policy Issues
I. Tokyo area (Tokyo, Kanagawa Prefecture, and Narita	(1) Promoting acceptance of global companies, foreign nationals, funds, etc.     (2) Ensuring diverse work styles including promotion of social participation by women
City, Chiba Prefecture)	(3) Promoting innovations including business launches, and making hubs for drug discoveries
	(4) Improving living environments to support businesses including those of foreign residents
	(5) Providing urban/transportation functions that are suitable for an international city with an eye to the Olympics/Paralympics
II. Kansai area (Osaka, Hyogo Prefecture and Kyoto)	(1) Accumulating and enhancing collaboration of healthcare facilities, research institutions, manufacturers, etc. that contribute to providing advanced medical care
,,,,,	(2) Removing factors that prevent R&D on advanced medicine, medical equipment, etc., and the smooth commercialization and overseas expansion of seeds
	(3) Creating urban environment, employment environment, etc. to attract human resources
III. Niigata City, Niigata Prefecture	(1) Accumulating/aggregating farmland, improving business bases through the expansion of corporate participation, etc.
	(2) The so-called <i>sixth industry</i> and development of high value-added food products (3) Implementing innovative agriculture using new technologies
	(4) Promoting exports of farm and food products (5) Supporting the creation of agricultural startups
IV. Yabu City, Hyogo	(1) Converting abandoned farmland, etc. into cultivated land
Prefecture	(2) Developing high value-added new agricultural and food products through the so-called sixth industry
	(3) Regional development through the unified promotion of agriculture and tourism/history and culture
V. Fukuoka City, Fukuoka Prefecture	(1) Improving the firm entry rate through the provision of support for startups
Prefecture	including business launches, etc.  (2) Promoting innovation by attracting MICE, etc. and creating new businesses, etc.
VI. Okinawa Prefecture	(1) Creating an environment in which overseas tourists, etc. can easily travel     (2) Promoting a tourism business model by leveraging regional strengths     (3) Creating global-standard innovation bases
VII. Semboku City, Akita Prefecture	(1) Efficiently using national forests by opening them up to the private sector (2) Promoting international exchange by using the clinical training system (3) Converting abandoned farmland, etc. into cultivated land (4) Attracting both Japanese and overseas visitors and developing tourism bases (5) Using unmanned flight systems for regional security measures and primary
	industry
VIII. Sendai City, Miyagi Prefecture	(1) Developing ambitious entrepreneurs by focusing on women, youth, and the elderly
Freiecture	(2) Speeding up procedures for starting businesses by mainly stock companies and non-profit organizations
	(3) Stabilizing the management of entrepreneurs and startups and the expansion of employment
	(4) Expanding the level of social participation by women by securing nursery staff members and decreasing the number of children who are on the waiting list for nursery schools
	(5) Promoting the demonstration of next-generation mobile systems to deal with disasters and industrial restoration
IX. Aichi Prefecture	(1) Developing industrial human resources by providing diversified training at public schools
	(2) Improving the income level of agriculture and transforming it into a growth sector (3) Expanding the scope of advanced medical care
	<ul><li>(4) Developing an optimal employment environment suitable for workers, including foreigners</li><li>(5) Establishing core bases for growth industries and advanced technologies</li></ul>
<u> </u>	(0) Establishing core bases for growth industries and advanced technologies

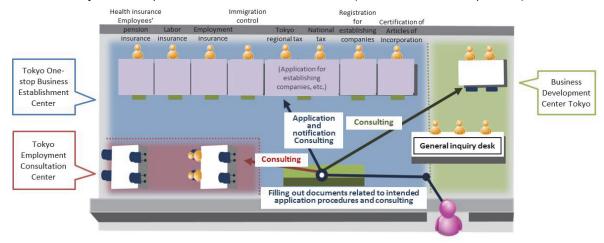
(Source: National Strategic Special Zones and National Strategic Special Zone Plans (Prime Minister Decision: May 1, 2014; Partial revision: August 28, 2015)

## (2) Specific initiatives related to starting and establishing businesses

Specific initiatives include the establishment of Employment Consultation Center in Fukuoka City, the Kansai area and Tokyo area, starting in the autumn of 2014. At this center, lawyers and other counselors offer free advice with the aim of raising awareness of employment rules and preventing individual labor related disputes. Niigata City has also received approval for a plan related to the establishment of a center in June 2015.

In addition, in the Tokyo area the Tokyo One-stop Business Establishment Center was established on April 1, 2015 at the headquarters of the Japan External Trade Organization (JETRO). This center, which is managed jointly by the Japan government and the Tokyo metropolitan government, promotes the establishment of foreign companies, domestic startup companies, and other organizations. To reduce the level of work involved in establishing businesses due to the vertically-divided administrative procedures, the center has integrated desks related to procedures for establishing companies, such as registration, taxes, pension and social insurance, and residence status authorization certificates. As a result, the center allows visitors to complete all the procedures on a one-stop basis. The booths of each department have counselors who are dispatched from the related ministries and agencies and the Tokyo metropolitan government. They engage in services such as helping to prepare applications and other documents, and receiving these documents. The center also provides multilingual interpretation and translation services to companies upon request.

In the past, the certification of Articles of Incorporation was generally required to be processed at a notary's office. However, following the enforcement of the revised Act on National Strategic Special Zones, a notary is now able to provide certification at the Tokyo One-stop Business Establishment Center, which is an office outside a normal notary's office.



Tokyo One-stop Business Establishment Center (at the JETRO headquarters)

Providing one-stop services for business matching, employment consultation, and other matters with the establishment of the respective offices for the Business Development Center Tokyo\* and the office of Tokyo Employment Consultation Center\*\* on the same floor in April 1, 2015

(Source: Documents of the Cabinet Office, Government of Japan, and Tokyo Metropolitan government)

<sup>\*</sup> The Business Development Center Tokyo is an office that provides comprehensive one-stop support to foreign companies or foreign entrepreneurs aiming to establish or managing businesses by offering business and living support. English-Japanese speaking billingual staff members with extensive international business experience handle inquiries via telephone, e-mail, or in person.

<sup>\*\*</sup> The Tokyo Employment Consultation Center is an office that provides support mainly to global companies and startup companies to ensure that they accurately understand Japanese employment rules and manage operations efficiently. Bilingual lawyers, labor and social security attorneys and other parties offer consulting.

In addition, following the enforcement of the revised Act on National Strategic Special Zones, it has become possible to make the most of regulatory reform items, such as the special provision related to speeding up procedures for establishing non-profit organizations and the special provision related to the promotion of the flexible movement of human resources across the border between the public and private sectors. With these initiatives, the government is aiming to further facilitate the start up and establishment of businesses in the special zones.

Special tax measures for certain companies (small enterprises and small and medium enterprises in the agriculture, medical, and bio sectors) have also been introduced. They include the relaxation of deficit requirements in operating cash flows related to the angel tax system.

Regulatory Reform Items, etc. Related to Starting and Establishing Businesses under the Revised Act on National Strategic Special Zones (Enforced on September 1, 2015)

Items	Outline
Establishment of the	Integration of desks for a variety of applications that must be submitted
Tokyo One-stop Business	when establishing companies, such as registration, taxes, pension, and
Establishment Center	social insurance and certification of Articles of Incorporation, to encourage
* Legalized with the	people, including foreigners, starting and establishing businesses; provide
revised act	comprehensive support, including counseling
Certification of Articles of	Clarification that, although notaries are required to perform their duties at
Incorporation by a notary	the notary's offices, they are allowed to certify Articles of Incorporation at
at an office outside the	the One-stop Business Establishment Center, an office outside the
notary's office	notary's office
Speeding up procedures	To facilitate the establishment of specified non-profit corporations, which
of establishing non-profit	represent one of the key factors of social businesses, drastically
organizations	shortening the public inspection period (currently two months) for the
	application documents required in procedures to obtain certification for
	establishing a corporation
Promotion of the flexible	To secure competent human resources in startup companies and develop
movement of human	a framework in which human resources who work for the government,
resources beyond the	local municipalities and other organizations experience no difficulties in
border between the	working for startup companies (consideration of including a period in the
public	calculation of retirement benefits if they return to the government and local
and private sectors	municipal offices)
Establishment of a	Establishing a human resources flexibility center (provisional name) that
humanresources	ensure human resources who work for the government, local
flexibility center	municipalities, and large enterprises experience no difficulties in working
	for startup companies, providing support that leads to greater flexibility in
	the labor market and the securing of competent human resources at
	startup companies
Promotion of receiving a	In regards to the requirements by local municipalities for examinations,
variety of foreigners,	etc. of business plans, relaxing the criteria for the resident status of
including startup human	business management of startup human resources (employing two or
resources	more regular staff members or investing 5 million yen at the minimum, etc.
	from the beginning)

## ■ Ministry of Agriculture, Forestry and Fisheries

The Ministry of Agriculture, Forestry and Fisheries has been carrying out measures in an integrated and comprehensive manner through programs that help transform rural areas into the so-called *sixth industry*.

The following programs are not necessarily subsidy programs that target startup companies, but they are initiatives that have been implemented to date by a number of startups with the aim of commercialization, aided by the cooperation of agricultural, forestry and fishery operators.

## (1) Sixth Industry and New Industry Creation Program (Commercialization Feasibility Survey)

As part of its promotional programs, the ministry carried out the greenery and water environmental technological revolution project program in FY2010 through FY2014. The ministry conducted the commercialization feasibility survey about the creation of new products and services that meet the needs of the market with the cooperation of agricultural, forestry, fishery, and other business operators. It also supported commercialization demonstrations of new technologies and other matters for new products, services, and items that were expected to be commercialized.

Item	Details					
Project	Supporting the implementation of the commercialization feasibility survey about the					
description	creation of new products and services that meet needs of the market with the cooperation					
	of agricultural, forestry, fishery, and other business operators					
Applicable	Private organizations, etc.					
organizations						
Subsidy rate	Fixed rate (Maximum: ¥5 million)					
Application	First application: February 25, 2015 to March 6, 2015; Second application: April 10, 2015					
period	to April 30, 2015					

## (2) Sixth Industry Promotion Network Activities Subsidies (Commercialization demonstrations of new technologies, etc.)

In FY2015, the ministry is supporting the commercialization feasibility survey through the Sixth Industry and New Industry Creation Program. It is supporting the commercialization demonstrations of new technologies and other matters as a part of the Sixth Industry Promotion Network Activities Subsidies.

Item	Details					
Project	Working in cooperation with agricultural, forestry, fishery, and other business operators to					
description	support commercialization demonstrations of new technologies and other matters for new					
	products and services that meet the needs of the market and are expected to be					
	commercialized.					
Applicable	Municipal governments and councils of municipal governments					
organizations						
Subsidy rate	No more than half of the project expenses					
Application	In accordance with the provisions set out by prefectural governments					
period						

### **■** Japan Finance Corporation

Japan Finance Corporation has provided funds to new business operators, including startup companies, mainly through capital loans. It also holds the High School Student Business Plan Grand Prix, with the aim of offering startup education to high school students.

## • Capital Loans

The Provision Scheme for Challenge Support and Capital Enhancement (Capital Loans) started in April 2008 (the scheme for small businesses started in March 2013) as a scheme to provide capital funds without security or guarantees to improve the financial strength of business operators who undertake the challenge of setting up new businesses. The maximum loan amounts are ¥40 million (for small business operators) and ¥300 million (for small and medium enterprises). The loan periods are a minimum of 5 years and one month but no longer than 15 years (for small business operators), and 5 years and one month, 7 years, 10 years, and 15 years (for small and medium enterprises). The repayment method is a lump-sum repayment at maturity. In FY 2014, capital loans were provided to 369 companies (¥22.7 billion) in total, including 119 small businesses (¥2.1 billion) and 250 SMEs (¥20.5 billion).

Provision Scheme for Challenge Support and Capital Enhancement (Capital Loans)

		FY2010	FY2011	FY2012	FY2013	FY2014
Startup/	Number of	98	142	246	664	369
New	Companies					
Business	Total Loan	4.3	4.4	13.4	51.4	22.7
Loans	Amount					
	(¥ billions)					

(Source: Disclosure, Japan Finance Corporation)

### High School Student Business Plan Grand Prix (from FY 2013)

Since FY 2013, Japan Finance Corporation has held "Creativity Unlimited: a High School Student Business Plan Grand Prix" that invites business plans from high school students nationwide. The Japan Finance Corporation aims to plant the seeds of entrepreneurship among young people by applying experience and know-how that it gained in providing startup loans to entrepreneurial education. There were 2.333 entries from 264 schools in FY2015.

During the application period, staff members in charge of startup support from Japan Finance Corporation visited high schools upon request to help students draft business plans. They visited 148 schools (310 times), with a total of approximately 5,500 students participating from May to October in FY 2014.

Second High School Student Business Plan Grand Prix

Item	Details
Applicable persons	Individuals or groups consisting of high school students nationwide
Support	Visiting high schools on request to help students to create business plans
Schedule	July to mid-October 2014: Acceptance of applications
	December 2014: Announcement of finalists
	January 2015: Final review
Number of entries	1,717 entries (Number of high schools applied: 207)
School visits	148 schools (310 times), participation by a total of approximately 5,500 students
	(May - October 2014)
Feedback to	Providing feedback for all business plans such as evaluation points and future
applicants	issues
Awards	Grand prize, semi-grand prize, special jury award, excellence award, school
	award, high school students business plan best 100

(Source: Japan Finance Corporation website (http://www.jfc.go.jp/n/grandprix/))

3rd Event Poster
Creativity Unlimited: High School Student Business Plan Grand Prix



## ■ Development Bank of Japan Inc.

Since 2011, the Development Bank of Japan Inc. (DBJ) has held the annual DBJ Women Entrepreneurs New Business Plan Competition for female entrepreneurs, providing winners with prize money of up to \$\xi\$10 million.

Overview of the DBJ Fourth Women Entrepreneurs New Business Plan Competition

Item	Details			
Applicable persons	Female proprietors of start-up businesses			
Application period	December 15, 2014 to March 2, 2015			
Number of	406			
applications				
Announcement of	June 22, 2015			
winners				
Subsidy	DBJ Women Entrepreneurs Grand Prize	Up to	¥10 million	
	DBJ Women Entrepreneurs Prize	Up to	¥5 million	
	Prize for Innovative Regional Growth	Up to	¥5 million	
Responsible office	Women's Business Startup Support Center, Corporate Financial Division No. 6			

(Source: Development Bank of Japan Inc. (http://www.dbj.jp/service/advisory/wec/))

## ■ Innovation Network Corporation of Japan (INCJ)

Innovation Network Corporation of Japan (INCJ) is an investment fund that was established based on the Act on Special Measures for Industrial Revitalization and Other Laws to Foster Innovation in Industrial Activities in Japan (the "Industrial Revitalization Law").

Investors Government investment: ¥286 billion; Private investment: ¥14.01 billion (2			
	companies and 2 individuals)		
Government	When funds are raised from financial institutions, a maximum of ¥1.8 trillion is		
guarantee	guaranteed by the government.		
Operational period	Operations started on July 27, 2009, and the operational period is 15 years.		

[Basic Philosophy and Investment Criteria]

# Create industries through open innovation that will be responsible for the national wealth of the next generation.

### What is open innovation?

Open innovation refers to activities that give rise to new added value by achieving innovation through the sharing and modifying of technologies and ideas externally beyond the frameworks of organizations and sectors, without insisting on an in-house development policy.

#### <INCJ's investment criteria>

Target projects in which INCJ makes investments must fall under all of the criteria described in (1) through (3) below.

#### (1) Respond to social needs

Projects must be those that respond to social needs, such as projects that respond to energy and environmental issues both in Japan and overseas, projects that realize a healthy and long-living society, and projects that enhance the productivity of the national economy by utilizing Japan's latent real strength.

- (2) Growth potential (must fall under all the items described in (i) through (iii) below)
  - (i) Expected to create new added value, etc.
  - (ii) Expected to receive funds from private business operators, etc.
  - (iii) Expected to have a high possibility of disposing stocks that have been acquired

### (3) Innovation

(i) Concentration and use of cutting-edge basic technologies

(ii) Concentration and use of management resources of startups, etc.

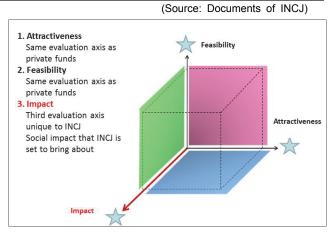
(iii) Realignment and integration of businesses centered on technologies, etc. (iv) Use of management resources other than those existing in Japan

<u>Create new added value that goes</u> beyond the existing frameworks, such as business sectors, companies, products, and markets.

## [Evaluation Axes for Investment Projects]

When examining individual investment projects, INCJ judges the attractiveness of investment and the feasibility of business plans in an objective manner. It also examines the existence and the level of impact on society – with investment impact as the axis of judgment.

The two judgment axes, the attractiveness of



(Source: Documents of INCJ)

investment and the feasibility of business plans, are evaluated based on the investment funds method. Due diligence is performed from various perspectives, including operations, technologies, finance, legal and human resources.

The investment impact is a judgment axis that is unique to INCJ. As described below, the impact of the related investment projects, in terms of the feasibility of changes that are designed to take place in the present and in the future, are judged in a comprehensive manner from two main viewpoints: 1) the development and accumulation of next-generation industries and emerging companies, and 2) the growth of next-generation industries through the innovation of existing companies.

### [Objectives of INCJ - Specific Investment Impact]

- 1. Development and accumulation of next-generation industries and emerging businesses/companies: Value of unused technologies and new technologies is improved, and these technologies are commercialized.
- Commercializing scattered patents, intellectual properties, technologies and ideas, achieving higher earnings
  - Concentration and modification of technologies and ideas
  - Creation of new startup investment and development models
  - Realization of matching that enables global business expansion
- Creating demand, customers, and business sectors through the modification of the existing framework, enabling Japanese companies to take a leading role.
- Realization of non-continuous innovation through ideas that go beyond the framework of corporate groups, technologies, ideas, and other matters, and the modification of these ideas
- Creating a new business model of cooperation among large enterprises, small and medium enterprises, and startups that will create new businesses
- Through the expansion of the previously described activities, the private sector provides risk money that encourages open innovations, and infrastructure is established in which the knowledge, technologies, human resources, and ideas are shared with an eye on the future.

- 2. Growth of next-generation industries through innovation within existing companies: Change in the position occurs within the value chain.
- Changing rules of the game
  - Acquiring global standards and specifications
  - Changing the position in the value chain
    - Changing from the subcontractor model to the planning model
  - Creating business models for actual production processes
- Creating global leader companies in specific segments
  - Reconstruction of business strategies
  - Creation of companies that are able to lead the global market
- Improving business development capabilities (sales and service and maintenance capabilities) that are rooted in overseas communities
  - Understanding of sales methods and earnings models that are different from existing models
  - Strengthening of sales capabilities (between countries) as a platform instead of as individual companies
- Creating groups that have a chance to become nextgeneration growth industries by realizing the global development of local companies (including small and medium enterprises) and global niche companies
- Maintaining the external competitiveness of key technologies, fundamental technologies, and important segments by working to achieve effective commercialization in Japan

(Source: Documents of INCJ)

In FY2014, startup investments amounted to ¥19.47 billion in a total of 19 companies both in Japan and overseas. In addition, LP investments were made in two funds for a total of ¥7.5 billion. Following the same manner as the previous fiscal year, in FY2015 investments have been made in companies in a variety of business sectors on different stages.

## Summary of Startup Investments by INCJ in FY 2014

Date (Day of Announcement)	Name of Portfolio Com	ipany	Investment Amount (JPY 100 million) (See Note 1)	Domestic or Foreign	Industry	Stage	Investment Type
4/24/2014	WISDOMS		15.0	Foreign	Manufacturing	Expansion	Follow-on
5/16/2014	CUSTOMER COMMUNICATION	IS, Ltd.	4.0	Domestic	IT services	Early	New
5/19/2014	Sansan, Inc.		7.5	Domestic	IT services	Early	New
5/22/2014	Create Vaccine Company, Ltd.		2.8	Domestic	Pharmaceuticals	Seed	New
6/2/2014	Microwave Chemical Co., Ltd.	*****	8.0	Domestic	Manufacturing	Early	New
7/8/2014	Cloudian Holdings Inc.	(Note 2)	15.6	Foreign	Software	Expansion	New
7/14/2014	QUADRAC Co., Ltd.		7.0	Domestic	IT services	Early	New
7/25/2014	NejiLaw inc.		7.0	Domestic	Manufacturing products	Early	New
8/4/2014	Oh My Glasses Inc.		9.0	Domestic	IT services	Expansion	New
8/7/2014	Agra Corporation		6.0	Domestic	IT services	Expansion	New
9/3/2014	WHILL Inc.	(Note 2)	9.4	Foreign	Other industry	Early	New
9/8/2014	K-engine Corporation		20.0	Domestic	IT services	Early	New
9/22/2014	SCIVAX Corporation	000000000000000000000000000000000000000	6.6	Domestic	Manufacturing	Early	New
10/7/2014	BIC Co., Ltd.		10.0	Domestic	Telecommunications/Network	Seed	New
2/9/2015	Quantum Biosystems Inc.		33.0	Domestic	Biotech	Seed	New
3/9/2015	Spectronix Corporation		5.0	Domestic	Manufacturing	Early	New
3/16/2015	GRA AgriPlatform		5.2	Domestic	IT services	Early	New
3/23/2015	Megakaryon Corporation		20.0	Domestic	Biotech	Expansion	Follow-on
3/31/2015	Miselu Inc.	(Note 3)	3.6	Foreign	IT services	Expansion	Follow-on
Total			194.7				

Note1: Investment amount based on public data (excluding investment deals without a disclosed amount)

Note2: Investment amount calculated based on Q3 2014 average exchange rate of \$1=¥103.9

Note3: Investment amount calculated based on Q1 2015 average exchange rate of \$1=¥119.2

## Summary of LP Investments by INCJ in FY 2014

Date (Day of Announcement)	Name of Portfolio Company	Investment Amount (JPY 100 million) (See Note 1)	Domestic or Foreign			
1/5/2015	1/5/2015 Incubate Fund III, LP		Domestic			
2/23/2015	Kansai Science City ATR-Venture NVCC Investment Limited Partnership	25.0	Domestic			
	Total					

Note1: Investment amount based on public data (excluding investment deals without a disclosed amount)

# Summary of Startup Investments by INCJ in FY 2015 (As of the end of September 2015 )

Date (Day of Announcement)	Name of Portfolio Company	Investment Amount (JPY 100 million) (See Note 1)	Domestic or Foreign	Industry	Stage	Investment Type
6/17/2015	Floadia Corporation	6.0	Domestic	Semiconductor	Early	New
7/23/2015	NanoMist Technologies Co., Ltd.	5.0	Domestic	Manufacturing	Later	New
7/27/2015	SMART INSIGHT CORPORATION	5.0	Domestic	Software	Expansion	Follow-on
8/3/2015	Innophys Co., Ltd.	6.5	Domestic	Manufacturing	Early	New
8/5/2015	SmartDrive	6.6	Domestic	IT services	Early	New
8/6/2015	Rena Therapeutics Inc.	6.0	Domestic	Pharmaceuticals	Seed	New
9/11/2015	AQUA Therapeutics Co., Ltd.	5.0	Domestic	Pharmaceuticals	Early	Follow-on
Total		40.1				

Note1: Investment amount based on public data (excluding investment deals without a disclosed amount)

# Summary of LP Investments by INCJ in FY 2015 (As of the end of September 2015 )

Date (Day of Announcement)	Name of Portfolio Company	Investment Amount (JPY 100 million) (See Note 1)	Domestic or Foreign		
4/14/2015	EEI Smart Energy Limited Partnership for Investment	50.0	Domestic		
Total 50.0					

Note1: Investment amount based on public data (excluding investment deals without a disclosed amount)

### ■ Regional Economy Vitalization Corporation of Japan (REVIC)

The Regional Economy Vitalization Corporation of Japan (REVIC) is a corporation whose predecessor was the Enterprise Turnaround Initiative Corporation of Japan (ETIC). ETIC was established on October 14, 2009 in accordance with the Act on the Enterprise Turnaround Initiative Corporation of Japan. REVIC as it exists now came into being following the comprehensive reorganization and expansion of its functions in accordance with the revision of the act on March 18, 2013. Its capital stood at \(\frac{1}{2}\)6.0848 billion (Deposit Insurance Corporation of Japan: \(\frac{1}{2}\)5.5848 billion; private financial institutions: \(\frac{1}{2}\)500 million) as of the end of September 2015.

ETIC engaged in operations intended to support the regeneration of businesses, such as small and medium enterprises, that possessed useful management resources but held excessive debts. In addition to these operations, REVIC that was established based on a new governing act, the Act on the Regional Economy Vitalization Corporation of Japan, started new operations. These operations include the establishment and management of companies that manage business regeneration and regional vitalization funds (specific business management), the dispatching of specialists to financial institutions and other organizations (specific specialist dispatching), the trust underwriting of loan claims of non-main banks (specific trust underwriting), and investments in and loans to business companies (specific investments).

New operations were later added as a result of the partial revision of the act on October 14, 2014. These included investments in limited partnerships related to business regeneration and regional vitalization funds (specific partnership investments), the purchasing of loan claims with managers' guarantees (specific support and specific claims purchasing), and the expansion of the scope of specific specialist dispatching to companies in which funds and other organizations with REVIC involvement make investments.

Operations related to the provision of funds for the growth of startup companies are carried out through regional vitalization funds that were jointly established by the fund management subsidiaries of REVIC (GP: REVIC Capital, etc.) and private fund management companies (there are cases in which REVIC and private operators established joint venture fund management companies). As of the end of September 2015, a total of 25 funds had been established, including 3 regeneration funds and 22 regional vitalization funds. Of these 22 regional vitalization funds, 4 funds target startups, and the remaining 18 funds that are categorized into tourism, healthcare, and growth in accordance based on their investment targets also include a number of funds that are able to make investments in startups.

The support period of REVIC is finite and the majority of the existing period of funds is 7 to 8 years.

The ways in which REVIC and venture funds deal with companies in which investments are made differ according to the governance methods and needs of these companies. There is a hands-on style in which management support is provided in an extensive manner, and a hands-off style in which minority investments are made. The style is determined based on the individual situation.

Vitalization Funds Launched (As of September 30, 2015)

Targete d Area	Category	Fund Name	GP	Committed Investment Amount (¥100 million)	Launch Date
Region	Tourism	Wakayama Regional Vitalization Investment Limited Partnership	The Kiyo Lease & Capital Co., Ltd. REVIC Capital	10	January 2014
	Venture	Shigagin Growth Strategic Fund Investment Limited Partnership	SHIGAGIN LEASE CAPITAL CO.,LTD. REVIC Capital	5	April 2014
	Growth	Seikan Vitalization Investment Limited Partnership	North Pacific Capital Co., Ltd. REVIC Capital	2	May 2014
	Growth	Triple Acceleration Growth Support Fund	Yamaguchi Capital	10	May 2014
	Growth	Investment Limited Partnership Gunma Medical and Industry Cooperation Vitalization	REVIC Capital The Gungin Leasing Co., Ltd.	8.6	November 2014
	Venture	Investment Limited Partnership Tottori University Industry-Academia Cooperation	REVIC Capital The Gogin Capital Co., Ltd.	10.2	January 2015
	Venture	Investment Limited Partnership Shimane University	REVIC Capital The Gogin Capital Co., Ltd.	10.2	January
		Industry-Academia Cooperation Investment Limited Partnership	REVIC Capital		2015
	Growth	NCB Kyushu Vitalization Investment Limited Partnership	NCB Capital Co., Ltd.	50	January 2015
	Growth	Hida Takayama Sarubobo Yui Fund Investment Limited Partnership	Hidashin Innovation Partners Co., Ltd. REVIC Capital	5	February 2015
	Tourism	Yamato Tourism Vitalization Investment Limited Partnership	AGS Consulting Co., Ltd. REVIC Capital	1.5	March 2015
	Venture	Ibaraki New Industry Creation Investment Limited Partnership	Joyo Industrial Research Institute Ltd. REVIC Capital	10	March 2015
	Growth	Hachijuni Regional Industry Growth Support Investment Limited Partnership	Hachijuni Capital Co., Ltd.  REVIC Capital	5	March 2015
	Tourism	ALL Shinshu Tourism Vitalization Investment Limited Partnership	Hachijuni Capital Co., Ltd. REVIC Capital	12	March 2015
	Tourism	Shizuoka Tourism Vitalization Investment Limited Partnership	Shizuoka Capital Company Limited REVIC Capital	13	March 2015
	Growth	Okinawa Vitalization Investment Limited Partnership	Okinawa Vitalization Solutions Co., Ltd. REVIC Capital	20	June 2015
	Tourism	Saga Tourism Vitalization Investment Limited Partnership No. 1	Sagin Capital & Consulting Co., Ltd. REVIC Capital	5	July 2015
	Tourism	Fukui Tourism Vitalization Investment Limited Partnership	Fukui Capital & Consulting Co., Ltd. REVIC Capital	3	August 2015
	Growth	Koiki Chiba Regional Vitalization Investment Limited Partnership	RD Tourism Solutions Co., Ltd. REVIC Capital	5	September 2015
	Tourism	Chiba Edo Masari Sawara Tourism Vitalization Investment Limited Partnership	CHIBAGIN CAPITAL CO.,LTD.  REVIC Capital	5	September 2015
Nation wide	Tourism	Tourism Vitalization Mother Fund Investment Limited Partnership	RD Tourism Solutions Co., Ltd. REVIC Capital	52	April 2014
	Healthcare	Regional Healthcare Industry Support Fund Investment Limited Partnership	AGS Consulting Co., Ltd. REVIC Capital	100	September 2014
	Growth	Regional Core Company Vitalization Investment Limited Partnership	REVIC Capital  REVIC Partners Co., Ltd.	290.5	April 2015

Note: Funds in which REVIC is involved only as LP are not included. Funds that are categorized as "Venture" are venture funds.

(Source: REVIC)

### ■ Cool Japan Fund Inc.

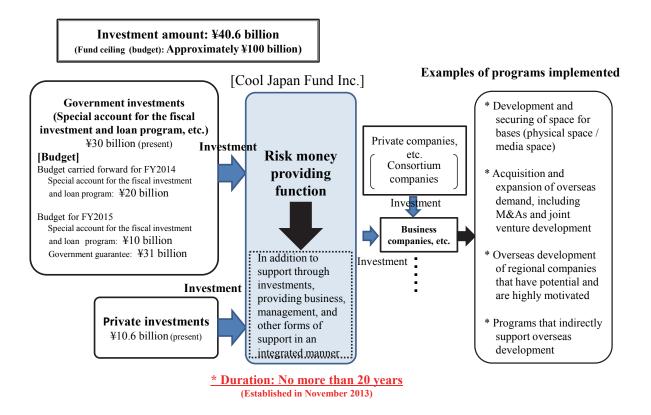
Cool Japan Fund Inc. was established in accordance with the corresponding act in November 2013 as a public-private fund. It aims to support and promote the development of overseas demand for attractive Japanese products and services.

Cool Japan Fund Inc. aims to commercialize the concept of "Cool Japan" and increase overseas demand by providing risk capital for businesses across a variety of areas, including media and content, food and services, and fashion and lifestyle.

With a committed focus to the policy of complementing private businesses, Cool Japan Fund Inc. conducts initiatives by providing risk money to facilitate private investments. These initiatives include the development of platforms (bases) and supply chains (distribution networks), foundations for gaining overseas demand, which have not been achieved by the private sector.

Cool Japan Fund Inc. also develops foundations in which regional small and medium enterprises and innovative creators, designers, and other parties are able to manage businesses in the way that they can receive benefits from their added value by expanding channels for the overseas consumption of attractive goods and services.

Investment Amount and the Business Scheme of Cool Japan Fund Inc. (as of September 2015)



## Summary of Cool Japan Fund's Investment Projects (as of the End of September 2015)

	Day of Announcement	Operator's Name	Project Description	Investment Amount	Target Country
1	September 25, 2014	Tokyo Otaku Mode	Media and e-commerce businesses, telling the world about the appeal of Japanese pop culture	¥1.5 billion	Global market
2	September 25, 2014	CLK Cold Storage Company Limited	Logistics business to create a cold chain in Vietnam	¥735 million	Vietnam
3	September 25, 2014	ICJ Department Store	Commercial facility business that will become a hub for Cool Japan in Malaysia	¥970 million	Malaysia
4	September 25, 2014	Ningbo Hankyu Commerce Co., Ltd.	Large-scale Japanese entertainment commercial facility in Ningbo City, China	¥11 billion	China
5	October 30, 2014	Anime Consortium  Japan Inc.	Internet streaming and e-commerce businesses for official Japanese anime content	¥1 billion	Global market
6	October 30, 2014	MCIP Holdings Co., Ltd.	Business of creating and distributing  Japan-style entertainment content  throughout Asia	¥1 billion	Asia
7	December 8, 2014	Japan Food Town Development	Japan Food Town Project in Singapore	¥0.7 billion	Singapore
8	December 8, 2014	Chikaranomoto Holdings Co., Ltd.	Restaurant business to communicate  Japan's incredible food cultures in major  Western markets	¥0.7 billion (Credit facility of ¥1.3 billion)	Europe, the United States and Australia
9	February 19, 2015	SDI Media Group, Inc.	Media localization service to accelerate the distribution of Japanese content overseas	¥7 billion	Global market
10	March 4, 2015	WAKUWAKU JAPAN	Overseas "Japan Channel" business	¥4.4 billion	Indonesia, etc.
11	March 30, 2015	KADOKAWA Contents Academy	Overseas content creator development school business	¥450 million	Global market
12	April 6, 2015	GREEN TEA WORLD USA, Inc.	US-based Japanese tea cafe business that originated in Nagasaki Prefecture	¥260 million	United States

(Source: Cool Japan Fund Inc.)

Note 1: Investments highlighted in the table are investments related to startup companies.

Note 2: The investment amount is based on documents available at the time of the announcement.



## **Entrepreneur Training: Venture Capitals also Focusing on University** and High School Students

Considering the scale of investment funds, the absolute number of startup companies is limited. This fact has been pointed out often in recent years as one of the issues faced by the Japanese venture investment environment. While different methods, such as persuading experienced workers of large companies to become independent, have been adopted in response, certain venture capital (VC) firms have started to conduct *Aotagai*, which involves recruiting high school students, university students, and other young people.

In certain cases in which seed stage VC firms are involved, there have been cases of high school students leaving school and entering evening high schools, or deciding not to go to university and starting businesses.

East Ventures has established an office near the Hongo Campus of the University of Tokyo to recruit students from that university. It is also eager to build up student startup communities by actively accepting student interns. It aims to identify and develop entrepreneurs in the ecosystem.

The University of Tokyo itself has also consistently pursued initiatives to create entrepreneurs. The Entrepreneur Dojo celebrated the eleventh anniversary of its founding in 2015. Now, 15% of the students are reportedly interested in starting businesses.

Mr. Peter Thiel was the individual who further inspired young people with entrepreneurial minds when he visited Japan in February 2015. Mr. Thiel is the founder of PayPal and also a venture capitalist. He has established the Thiel Fellowship, a system in which support is provided to young people 20 years old or younger through a foundation that Mr. Thiel himself established. He offers funds to competent young people and, when necessary, he recommends that they leave university before they get their degree so that they can set up startup businesses.

Although Mr. Thiel expressed his concerns about excessively encouraging high school students to start businesses because he believed that it was a little too early, it is still important for young people to be aware that they can also start businesses. Proof of this can be seen in SLUSH, a startup event in Finland that has recently generated a lot of interest. Finland is known for being a country that has eagerly focused on entrepreneur training for young people since the 1990s.



## **Expansion of Venues of Training: Venture Capitalists Train Venture Capitalists**

There are an increasing number of opportunities for venture capitalists to become actively involved in businesses. There are also experienced capitalists who aggressively provide opportunities to a reserve army of capitalists who are motivated and competent. Likewise, there are an increasing number of cases of individual venture capitalists with track records moving to different funds. This development partly reflects the fact that a number of new funds, including corporate venture capital (CVC) funds, have been established recently.

Tohru Akaura, general partner of Incubate Fund, is known for his keen involvement in the training of junior capitalists. In 2014 and 2015, Incubate Fund served as the LP in making investments in No. 1 funds launched by Inclusion Japan and the KK Fund in Singapore. Inclusion Japan mainly invests in the IoT, and KK Fund invests predominantly in IT startups in Southeast Asia.

Monetary returns are preconditions. General Partner Akaura has a desire to contribute to the development of human resources by broadening the base of venture capitalists. He has supported venture capitalists by investing in the Samurai Incubate funds from the early stages. In developing venture capitalists, it is true that training does have a certain impact, but acquiring skills through hands-on work is also essential. In that sense, providing money to No. 1 funds has a major impact.

East Ventures also plays a part in training venture capitalists by making investments as an LP in next-generation VCs, such as Skyland Ventures.

On the other hand, in 2014 and 2015 there was significant movement in venture capitalists leaving their firms and joining different firms. This included movement from CyberAgent Ventures, Inc. to firms related to Digital Garage, from Globis Capital Partners to the University of Tokyo Edge Capital, from MITSUI SUMITOMO INSURANCE Venture Capital to Globis Capital Partners, from ITOCHU Technology Ventures to Salesforce Ventures, and from Salesforce Ventures to Draper Nexus Ventures. With the continuing flow of risk money into VC firms, there is strong demand for venture capitalists who possess proven track records.

There is the expectation that the movement of venture capitalists to other firms will help to spread and share know-how throughout the industry, and as a result improve the quality of venture capitalists in Japan.

## 4. Venture Support from the Private Sector

Japanese venture capital (VC) firms are becoming increasingly selective in choosing investment targets, reflecting a recent surge in the valuation of startup investments. At the same time, investments in startup companies by corporate venture capital (CVC) subsidiaries of non-financial corporations appear to be trending higher.

VCs and securities companies have played a significant role, particularly in supporting startup companies aiming for IPOs. They are likely to continue playing this role in the future. In contrast, banks appear to have maintained a rather conservative stance in dealing with startups, although there are suggestions that this is beginning to change. One particular development that requires attention is the change in mega banks that have broad networks in the business community. Over the past one to two years these banks have reviewed the division of roles internally and at their subsidiary VCs, and have started to adopt more aggressive and diversified approaches that differ from existing startup support.

In light of the progress of initiatives for open innovation, this section will spotlight the following two topics: 1) the establishment of collaboration between startups and large companies that have become active mainly through CVCs, and 2) the latest trends in startup support by mega banks.



## **Change in the Conditions of Class Shares**

The use of class shares in making venture investments has also become fairly popular in Japan. Initially, the clauses included in class shares mainly reflected the interest of VC firms due to differences in the supply/demand relationship of funding and the level of understanding about the legal system. However, this practice has been changing in recent years. The residual asset distribution right related to the sales of companies through M&A is considered to be a representative example of this change.

"My friends said to me, 'Congratulations' and 'Buy us a round of drinks.' But in actuality, I didn't make any money at all," said one manager disagreeably. The manager recently sold his company to a listed company. He explained that the residual asset distribution right was exercised and VCs took away profits first. This is because his company had received investments from a VC and the scale factor for the residual asset distribution right had been set at three times. The cash generated through the M&A was distributed to the VC first. In doing so, an amount three times larger than the actual investments was distributed to the VC based on the clause of class shares. As a result, there was apparently hardly any cash left for management. When this company received investments, the position of VCs that were making the investments was stronger than that of the startup company because flows of risk money to startups were limited.

However, the situation has changed in recent years because an excess of funds are available for investments. A Chief Financial Officer of a startup company in the education sector made the following statement: "In the past a scale factor of between three and five times was normally demanded, but in recent years, it is only one time. Our (startups') requests seem to be generally accepted." It appears that not only are the amounts of investments increasing and the valuations rising, but also that the conditions of class shares have become favorable for startup companies.

### (1) Collaboration between Large Companies and Startups

### Foreword

There have been a number of cases in the United States in which large companies and startups actively collaborate. In Silicon Valley, an ecosystem that surrounds startups has been established, with large companies playing a key role within this system. The majority of large Japanese companies have traditionally taken an in-house approach to development, commercializing products based on the results of their own research. For this reason, there were not many attempts to adopt external innovations. However, the limits of innovation, including the speed of commercialization, for companies that rely purely on in-house development are now beginning to be pointed out. To maintain their competitive edge, companies have become actively involved in so-called "open innovation" initiatives in which they even use innovations that are created externally. As a result, Japanese large companies have also begun to take notice of startups as potential partners in open innovation.

This section will analyze with the focus on CVC, which is considered to be one method of open innovation.

To sum up the conclusion of this analysis, it leads to a few specific points. The first is that CVC generates merits for both large companies and startups. The second is that the key points for success are the clear commitment of management and the focus on achieving financial returns. A detailed explanation is provided as follows.

In preparing this report, interview-based surveys were conducted with individuals at large companies that have already invested in startups or have plans to make these investments in the future. Going forward, we aim to collect a wider range of information in a quantitative manner through questionnaire surveys. We hope this plan will contribute to the development of CVC activities in the future.

### Collaboration between Large Companies and Startups in the United States

A number of global startup companies have been established in the United States, particularly in Silicon Valley. One of the factors that prompted the development of Silicon Valley is the existence of an ecosystem that surrounds startups. In the process of building up startups, the establishment of an alliance with large companies and capital participation by large companies further accelerates the growth of startups. Ultimately, startups may become large companies through IPOs, or they may become part of large companies as a result of M&A.

In the past, large companies such as General Electric, IBM, Microsoft, and Cisco Systems have consistently achieved growth through investments in startups and M&A. Examples of this in more recent years include Facebook and Google, which have been aggressively building up collaborative relationships with startups. Facebook and Google were originally startups and have experienced accelerated growth that both major companies and startups achieve when they form business alliances. For this reason, having become large companies themselves, Facebook and Google are now investing in startups. One of the motivating factors for making these investments appears to be a desire to facilitate their own growth.

Based on the survey conducted by the National Venture Capital Association (NVCA) in the United States, CVCs accounts for nearly 10% of the total investments made in startup companies. The total amount of investments made in startups in January 2014 through December 2014 stood at \$49.3 billion in

the United States, of which the investment amount made by CVCs amounted to \$5.3 billion. In other words, investments made only by CVCs by far exceed the amount of investments in startup companies in Japan.

### Matching of Large Companies and Startups

The growing number of large companies seeking to collaborate with startup companies has lead to an increase in the number of structures and events that encourage cooperation between large companies and startups. For example, there are a number of programs that seek to take startups in the seed stage and help them to advance to the stage in which they are able to carry out business in cooperation with large companies.

#### **Acceleration Program**

In the past, governments, local municipalities, and public interest corporations took on the role of managing incubation programs that were aimed to build up startup companies in the seed stage. Recently, acceleration programs in the private sector, such as seed accelerators, have become popular. Typical examples of seed accelerators in the United States are Y Combinator, Techstars, and Seedcamp. Startups that complete programs provided by the accelerators reported receiving investments from a number of leading VCs and large companies. Acceleration programs managed by private companies have also emerged in Japan. They include MOVIDA Seed Acceleration Program, Leave a Nest TECH PLANTER, KDDI∞Labo, and DOCOMO Innovation Village and Open Network Lab. In addition, promising startups that complete acceleration programs will have a chance to receive investments and other support in the future from large companies that participate in the programs. As a result, acceleration programs appear to have become an extremely important link for startups that seek to collaborate with large companies. In fact, there are sponsors who clearly state that they do not make investments in the acceleration stage. There were also persons in charge of acceleration programs who said that, although there were cases of the actual provision of funds, there was only a limited number of startups that required funds when they were in the stage of participating in programs. In the case of the previously mentioned Y Combinator and Techstars, sponsors make relatively small investments (between approximately \$10,000 and \$50,000).

## **Matching Events**

Matching events are also counted as a scheme which brings together large companies and startup companies. There are a variety of events being organized, including Morning Pitch, Connect!, creww, Infinity Ventures Summit, and B Dash Camp. There are a number of cases of existing VCs playing a role in inviting startups by sponsoring or co-sponsoring events. In the majority of cases, the basic structure of matching consists of an event in which the main part is devoted to presentations by startups. After watching these presentations, participants from VCs and large companies contact the startups in which they are interested. There are also matching events in which large companies give presentations to startups about the types of startups and technologies they are looking for, after which startups contact the large companies who gave the presentations that caught their attention. Certain events start in the early morning or continue for a few days. Regardless the structure, the large number of companies participating in these events indicates how serious both VCs and startups are.

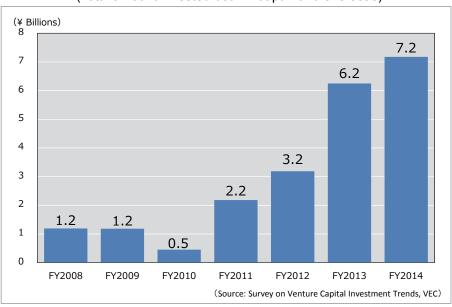
## **Corporate Venture Capital (CVC)**

### **Background for the Increasing Number of CVCs**

As reported in VEC YEARBOOK 2014, private non-financial corporations have been accelerating investments and M&A activities involving startup companies. In the investment amounts presented in the VEC Survey on Venture Capital Investment Trends, the trends in the amount invested by the CVC subsidiaries of private non-financial corporations indicate significant growth in the amount invested from FY2011 (Figure 1-4-(1)-1). Looking at this survey, it is important to note the fact that the survey does not cover investments made by all CVCs.

(Reference) According to reports from newspapers and other sources, the amount of startup investment funds launched by the CVC subsidiaries of private non-financial corporations reached \(\frac{4}{70}\) billion in FY2014. The scale of certain funds even reached \(\frac{4}{20}\) billion. While these amounts are the commitment amount of investments in funds, it is assumed that the investment amount has also become larger in line with the commitment amount.

Figure 1-4-(1)-1 Trends in the Amount Invested by the CVC Subsidiaries of Private Non-Financial Corporations



(Total amount invested both in Japan and overseas)

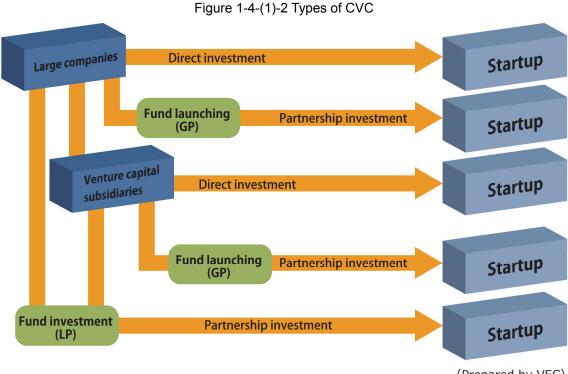
It is said that the amount invested by CVCs has increased because the possibility of choosing to develop a cooperative relationship by investing in startup companies has emerged. This is believed to be the result of the rising necessity to enter business sectors that large companies have never engaged in on their own. The existence of a large sum of internal reserves held by large companies supports this increase in investments. According to the "Flow of Funds" released by the Bank of Japan, as of the end of June 2015, cash and bank deposits held by private non-financial corporations amounted to ¥243 trillion.

Certain Japanese companies (such as Nippon Steel, NTT, and FUJITSU) took the initiative as LPs and made investments in VCs in the United States in the latter half of the 1980s. NEC began CVC activities in 1997, followed by Panasonic in 1998. Although some companies withdrew from CVC activities in the

United States after the IT bubble began to collapse in 2000, certain Japanese companies are still involved in these activities even now (as of 2015).

#### **Definition of CVC**

There are different investment types of CVCs. The typical patterns are shown in the figure below.



(Prepared by VEC)

There is a variety of opinions about how to define CVC. Some people define CVC as small-amount direct investments in startup companies by existing companies or investments in startups by non-financial general business corporations with strategic and financial targets. Others define CVC as activities involving investments in startups and capital participation without controlling power (minority investments) by business corporations whose main operations are not investments. As these opinions show, the majority of people appear to define CVC by specifying conditions, such as "small amount" or "minority investment."

VEC defines CVC as startup investments by private non-financial corporations. Essentially, as long as a structure is set up in a way that the source of funds is a private non-financial corporation and the funds flow into startups, then these activities are considered to be a type of CVC. VEC also includes the process of concluding M&A by carrying out majority investments in CVC (as explained later, because certain companies approach CVC with an eye on M&A, it is necessary to include M&A that are an extension of the minority investments in CVC). If additional investments are made in startups after the power to control the startups is obtained by making majority investments, these investments are regarded as additional investments in subsidiaries, and are not included within the scope of CVC. (See Figure 1-4-(1)-3.)

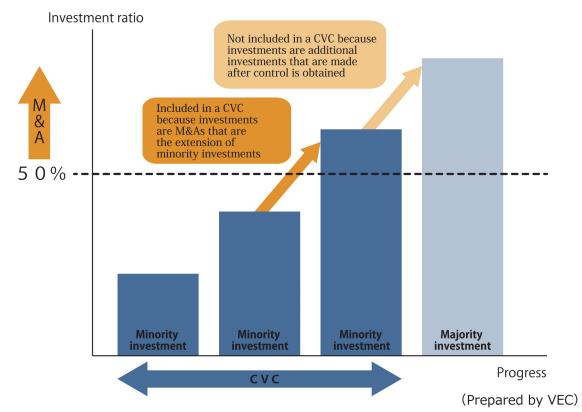


Figure 1-4-(1)-3 Scope of CVC Assumed by VEC

### **Objective of CVCs**

In interview-based surveys, a number of large companies indicated that the objective of CVCs was "strategic." For example, many large companies appear to make investments with the expectation of achieving a sense of synergy within their operations. For manufacturers alone, the idea of CVC can be considered an R&D strategy. There are also companies that carry out CVC to acquire the latest technological information and trends. In this case, the majority of companies appear to pursue LP investment rather than direct investment.

There were only a limited number of companies that carried out CVC to "gain a financial return." There were also companies that "do not expect any financial return at all" or "expect a minimum financial return." However, it would be fair to consider that even for companies who do not use CVC to gain a financial return, if there is a financial return, it would make it easier for these companies to continue carrying out CVC activities.

## **Merits and Demerits of CVCs**

Establishing a business alliance with startup companies may "possibly speed up" the decision making of large companies, or at least companies in the business sector in which the alliance is established. This is considered to be the merit of CVCs. In many cases, it is believed that startups make decisions faster than large companies, and also achieve technological development relatively faster than large companies. The ability to share the efficiency of startups is considered to be a significant merit of CVC for large companies. Even in the sectors in which large companies are able to carry out internal R&D, using the

innovations of startups still holds significance for large companies because it allows them to "buy time (as well as human resources)."

On the other hand, CVCs also provide startups with the merit of "satisfying needs other than funds," something that cannot be done with financing through ordinary VCs. Because many large companies that carry out CVC make investments with an eye on business alliances, they not only aim to establish capital alliances, but often provide assets along with to funds or support to expand the sales channels of startups. In addition, when large companies commercialize technologies that were developed by startups, they can help to greatly reduce the risks borne by startups by playing a role in mass production or the quality assurance of products.

However, concerns that investment funds from CVCs become so-called funds tainted with a large company image cannot be denied. For example, startups will probably prioritize transactions (procurement, sales, etc.) with large companies that are the source of funds. One person in charge of CVC at a large company felt that CVCs were restricting the activities of a startup in which funds had been invested, when instead it should really be dealing with a variety of business partners.

### **Results of CVC**

It is believed that CVC activities enable many companies to actually experience the "speed of startups" and the "improved awareness of innovation and taking the initiative with startups." However, partly reflecting the fact that a majority of companies that responded to interview-based surveys started CVC activities less than five years before, the number of companies that clearly stated that they achieved significant results by now was very limited. Certain companies have gained a financial return as a result of the IPOs of investment targets or M&A by other companies, but these companies often do not consider these returns to be the result of CVCs.

In addition, it seems that certain companies have not established clear key performance indicators (KPI). In other words, in many cases it appears that results are measured based on qualitative evaluations, such as determining whether companies were able to promote their activities or whether investment was strategically meaningful."

### M&A as Part of CVCs

There are cases in which companies that carry out CVCs aim to pursue M&A. When interviews were arranged, certain companies clearly indicated that "the final objective of a CVC is to complete M&A." However, there were companies that believed that it was difficult to carry out M&A as an extension of CVC. One person in charge of CVC at a manufacturing company said "there are examples of medium companies carrying out M&A, but the grounds for carrying out M&A that target startup companies have not been established." Overall, it appears that although companies seek to pursue M&A, for practical reasons the number of cases in which M&A are actually carried out is rather small.

### **Issues**

The latest interview-based surveys revealed a range of issues. Currently, we even feel that the number of issues is actually larger than that of results. We believe that steadily uncovering solutions for issues will lead to the success of CVCs. We would like to conclude this section with the following summary of issues in CVC activities.

### 1. Management's Commitment to CVC Activities

It usually takes time before venture investments begin generating returns. Venture investments also entail large risks. It is considered natural for the finance divisions of large companies to respond negatively to them. In addition, there seem to be many cases when negative views are issued by research offices, such as central research centers of manufacturers. A majority of large companies tend to reach the decision that they can handle things themselves. Therefore, amid the echo of the many negative views held internally, it is believed that the ability to sustain CVC activities depends on the decisions of management and its degree of insight. In other words, management's commitment significantly influences the direction of CVC activities. One person in charge of CVCs said "it is easy for us to promote activities now because management is firmly committed, but I do not know what will happen in the future if there is a change in management."

Restrictions when investment decisions are made are more severe in CVCs than in ordinary VCs. In the case of CVCs with strategic objectives, the management strategies of a parent company exert a strong influence on investment activities. Although there are many companies that separate CVC activities from their parent companies by establishing CVC subsidiaries, it is still difficult to ignore the intentions of the parent companies. There are CVC subsidiaries (although the number is limited) that maintain a reasonable degree of independence from their parent companies by voluntarily accepting investments from companies outside the parent company groups in the funds that these subsidiaries manage.

## 2. Contact with Key Persons in Large Companies

There is also the issue of how to match the innovations of startups with the different kinds of human resources in large companies. For large companies, it is difficult to determine exactly who needs what. As a result, there are cases of people in large companies who experience problems in not always being able to make contact with the staff members (key persons) with whom they need to speak. The accuracy of matching technologies that startups have and companies' internal needs will involuntarily determine the success of CVC activities. Likewise, when introduced to key persons inside companies, it is necessary to ensure that introductions are made without relying on specific individuals. When activities depend on specific individuals, operations may continue effectively for a certain period of time, but the transfer of these individuals may immediately destroy all the relationships that have been developed.

## 3. Balance of Operational Speed and Governance

There were also cases of persons in charge of CVCs at large companies who are puzzled by the sense of speed at which investments are carried out in startups. In the case of listed companies because corporate governance is important, there is a need to follow the required procedures in order to remain accountable

to shareholders when making investments. However, if governance is observed too strictly when making actual investments, companies will become unable to deal with the situation and possibly miss out on projects if they fail to make the investments at the right time. The balance between the operational speed and governance is considered to be one of the main issues of CVC.

## 4. Size of Management Costs for Large Companies when Building a Cooperative Relationship with Startups

One person in charge of CVCs who faced the issue of cooperating with startups said that "even when you ask them (startups), they are incapable of handling matters that pose no problems for large companies." Even if a startup has competent engineers and sales staff, it does not necessarily mean that it has capable human resources in the administration division. There are reportedly companies that are unable to prepare extensive reports, such as monthly financial statements. In addition, if the president of a company is an engineer, he tends to be focused on development, and at times is not very interested in reporting on the management situation of the company. In these cases, large companies will incur significant management costs when they attempt to build a cooperative relationship with startups in which they have invested.

### 5. Training of Human Resources and the Development of a Human Network

Human resources and a human network are crucial to the success of CVCs. Generally speaking, large companies do not possess a system in which they are able to internally develop human resources that have VC operational skills. In addition, the world of people related to investments in startups is very small, and there is even an air of exclusivity. As a result, it is said that unless people join the network of a group involved in investments, it will be difficult for them to find high-quality investment projects. However, it is difficult to develop relationships and become part of a human network in a short period. People assume that there are not many large companies in Japan that are equipped with both human resources and human networks. Some people feel that human resources and human networks have been developed over a long time in regions and countries where CVCs are actively pursued, such as the United States. Certain large companies even set human resources development as the primary objective of CVCs. They reportedly send human resources to startup companies in which they have made investments, and the startups provide training to elevate these individuals into capitalists. It appears that there are also companies which seek to slowly develop human networks by making LP investments in funds. In addition, there are CVCs in which capitalists are externally outsourced. One certain large company has established and managed startup investment funds jointly with existing VCs.

Capitalists must have "hands-on ability" through which they can expand startups together with the managers of the startups. It is definitely not easy for large companies to develop human resources with business management capabilities. If a company cannot afford developing capitalists internally, it needs to examine the possibility of externally outsourcing venture capitalists.

VCs that are specialized in fund management outsourcing have also emerged. It is reported that these types of VCs subcontract fund management operations of companies that carry out CVC and venture capitalists that have concluded a business outsourcing agreement with VC actually manage the funds.

We would like to take this opportunity to express our gratitude to the people in charge of CVCs, startup managers, and academic experts for their cooperation and advice in preparing this report. We hope that we can continue to count on their cooperation in the future in our efforts to further develop CVC activities and other initiatives in Japan.



## Acceleration in the Matching of Large Companies and Startups

The matching of large companies and startups has become active. For companies to achieve growth, it is essential that they create new businesses in a sustainable manner. However, in large companies employees all tend to think the same way, and ideas for new businesses often go unnoticed because the scale of the operations is large. To tackle this situation, efforts have started to make use of startups' power to create ideas and their ability to deal with a wide range of difficulties. We are also now seeing companies that intermediate between large companies.

The Second Tokyo Innovation Leaders Summit (organized by PROJECT NIPPON Co., Ltd.) attracted 97 large companies and 447 startups, and hosted a total of 1,480 business meetings. In 807 of these meetings, or more than 70%, large companies expressed their desire to have further meetings. TEIJIN LIMITED began to offer sleep related services by cooperating mainly with Unlog (Shibuya-ku, Tokyo), a health-related startups. LOFT established the first real store of Oh My Glasses (Minato-ku, Tokyo), an Internet mail order operator.

There has also been a rise in the number of "corporate accelerator programs," which are systems that large companies manage to support startups. GAKKEN HOLDINGS started a trial of run of support for education related startups in 2015. It invites business ideas, including those from individuals, and also makes investments in the best ideas. In the first term, it received 111 applications and decided to invest in four companies.

01Booster (Minato-ku, Tokyo) managed programs as a supporter. It runs its operations by making a model of methods employed mainly by Techstars in the United States, which supports the accelerator programs of large companies, such as Disney in the United States and Barclays in the United Kingdom. It also provides services to companies such as MORINAGA and West Japan Railway Company in business sectors in they rarely had a opportunity to interact with startups in the past.

Crew (Meguro-ku, Tokyo) also provides similar services. Large companies decide on themes for initiatives they wish to tackle with startups, and are able to invite startups that are willing to develop a form of collaboration with the startups members of Crew. Companies in a variety of business sectors, such as Asahi Group Holdings and YOMIURI SHIMBUN, have been using its services.

### (2) Mega Banks Are Starting to Pay Attention to Startup Companies

Mega banks with extensive networks in the business community have recently started to become serious about offering support to startup companies. This can be seen in the following developments:

- 1. Mega banks (banks themselves) have started to support startups through aggressive and diversified methods that are different from their existing approaches.
- 2. As part of open innovation in the banking sector, mega banks have started to provide aggressive support to startups related to FinTech.

For details about the support to startups related to FinTech, please see the column on page I-95. This section will examine the recent activities of mega banks in relation to their support of startups other than those related to FinTech, taking into account the content of interviews with the three mega banks and the results of other developments.

### Adopting Aggressive Stance on Extending Loans to Startups

VC firms that are subsidiaries of mega banks were established in the 1970s. These subsidiaries have a long history in the VC industry.

To date, financial support to startups has been extended through the combined approach of subsidiary VCs handling equity finance and banks handling loans. However, banks were said to be very cautious about extending loans to startups, and even if they did, they limited borrowers to startups in the later stages or those that just made or were about to make IPOs.

However, in recent years there have been an increasing number of cases in which mega banks cooperate with subsidiary VCs to provide working capital and other funds to startups not only in the later stages, but also to those in the expansion stages. Certain banks have even provided working capital to startups in the early stages. In addition, by establishing business alliances with public financial institutions (such as Japan Finance Corporation), mega banks are starting to provide funds to startups through a scheme in which public institutions extend subordinated loans that are similar in nature to capital while banks offer syndicated loans.

The screening system of mega banks has also been improved and changed. For example, one mega bank has established a screening department that exclusively handles growth companies, centering on startup companies. Instead of screening paper documents as was done in the past, the person in charge of screenings assesses the actual situation and the potential of the operations of startups by mainly visiting the startups in person and holding meetings with their managers. Another mega bank carries out due diligence and other operations by allocating human resources with the capabilities of venture capitalists to a startup support department. The bank holds discussions and conducts screenings with the three parties—the startup support department, the screening department, and one of the sales branches—and then the screening department makes the final decision.

A new trend of establishing business alliances with the National Institute of Advanced Industrial Science and Technology has also emerged among mega banks. Through these alliances, they work to enhance technology seeds and the capabilities in order to make mature technological judgments.

In addition, we are now starting to see mega banks whose stated policy indicates that they, and not a subsidiary VC, will make investments and provide loans for large-scale projects. The businesses proposed by these projects exhibit great potential to develop large markets in the future, even though it will take a long time for them to commercialize products and require a large amount of funds. As a result, these mega banks have adopted a policy of addressing specific large-scale projects as a group. Although the number of the projects appears to be still limited, this development is worth noting.

### Diversification of Startup Support: Introduction of Customers Is Most Important for Startups

One noticeable trend over the last one to two years is that subsidiary VCs and banks themselves are trying to cooperate in an organized manner to identify and train startups and provide sales support, such as introducing customers.

To aid the development and training of startups, banks started to hold various kinds of events. These include pitch contests sponsored by banks for startups, and business plan training and pitch events co-sponsored by a public institution (NEDO), and think tanks that are the group companies of mega banks, with the aim of identifying academic startup companies. For all of these events, banks provide business support funds, consulting services, business matching services, and other benefits to companies and teams who have been awarded prizes, indicating the banks' commitment to initiatives for actively supporting and developing startups.

Startups have an especially strong need for customers of their products. To this end, mega banks that possess an extensive range of information on customers are focusing on an organized and full-fledged approach to introducing startups to potential customers of their products. This service provides support that is very beneficial and effective for startups.

In addition, banks are offering diversified types of support to startups by improving their services through the introduction of their own unique ideas. For example, banks themselves have started establishing business alliances with industry-leading patent and law offices to support startups with the use of the intellectual property rights they own.

## Rising Expectations for Mega Banks: Approaches from Even Large Companies

Mega banks have made these changes because they have adopted a form of fundamental management judgment that is more focused on the medium-to-long-term perspective. When forecasting banking transactions ten years from now, mega banks appear to be gripped with a sense of crisis regarding the following two points: (1) Target transactions will no longer be secured by relying solely on the growth of existing industries. Without creating new industries, mega banks will not be able to secure transactions they anticipate. (2) Asset risks in the investment and loan asset portfolio cannot be diversified by relying on existing industries and placing too much emphasis on specific industries.

Mega banks have positioned startups as one of main sectors that hold the key to the creation of new industries. As a result, they have started to actively engage in startup support, based on the notion of offering support that takes into account the anticipated business situation 10 years into the future. Even if cyclical changes in the financial environment occur, it appears there will be no significant scale-down in activities to support startups in the future.

In addition, one of the latest and most notable developments is that mega banks have been receiving an increasing number of inquiries and requests from the new business development sections of large companies. These sections reach out to mega banks because they want to be introduced to startups that operate in sectors in which their companies are exploring the prospects of business development. Mega banks have vast customer networks and are known to gather information efficiently, partly due to the reliability of their information management. For these reasons, they are poised to play a new role in an effort to promote startups.



### Mega Banks Acquire FinTech through Startup Support

Mega banks have become serious about providing support for startups. Their activities are particularly noticeable in startups related to FinTech, a sector in which finance and the IT are integrated. Certain projects aim to establish business alliances. It is difficult for the engineers of mega banks on their own to understand IT trends and develop new financial IT services, such as in the rapidly expanding website, mobile service, and big data fields. It is essential to be engaged in open innovation in order to adopt the capabilities of startups.

In this environment, one mega bank that is leading the way is the Bank of Tokyo-Mitsubishi UFJ, Ltd. (MUFG). In June 2015, MUFG held the Fintech Challenge 2015, a pitch contest in which FinTech startups participated. The defining feature of this contest was that in the selection of startups, priority was placed on the capabilities of startups to develop a cooperative business relationship with MUFG.

Sumitomo Mitsui Banking Corporation also held a presentation event in September 2015 to which it invited FinTech startups. The purpose of the event was also to find partners with which the bank was able to establish business alliances. The main themes of the event were applications for mobile terminals, artificial intelligence (AI), and biometric authentication. In both events put on by these two banks, the officers of each group company participated in the events as judges and sought to evaluate startups in a practical manner.

Movements to support startups in the technology sector have also started among smaller banks. In August 2015 the Shizuoka Bank, Ltd. invested in Money Forward, Inc. (Minato-ku, Tokyo), a provider of family finance management services. Money Forward is considered to be a front runner among FinTech startups. This is a pioneering case of investments made by a bank. The Shizuoka Bank also took a stake in Monex Group, Inc., an online securities company, in 2014.

In December 2015, Fukuoka Financial Group, Inc. sent out an invitation to businesses involved with settlement services and the sharing economy that used information and communication technology (ICT). Moving forward, it will examine the possibility of cooperative relationships for the commercialization of products.

Reference: FinTech

FinTech is a coined term that is made up of the words "finance" and "technology." It essentially refers to financial services that use IT technologies. Traditionally, major vendors that provide accounting systems to financial institutions have held a leading position in this sector.

In recent years, startup companies that specialize in FinTech have emerged.



### Crowdfunding Supports Manufacturing Startup Companies: Rising Expectations also for Equity-based Crowdfunding

Crowdfunding is becoming an important funding method for startup companies. It is a convenient system for manufacturing startups involved predominantly with the Internet of things (IoT) because crowdfunding also serves as test form of marketing for newly developed products and helps create fans.

The most popular form of crowdfunding among manufacturing startups is reward-based crowdfunding. This can be regarded as a type of build-to-order manufacturing. One extremely popular platform is Makuake (Operator: CyberAgent Crowd Funding, Inc.). The strength of this platform is the media presence of CyberAgent. Makuake is able to reach a wide range of people and identify demand. There are a number of funds in this platform that are ranked in the top level in terms of funding amounts in Japan. Makuake has also captured the demand of in-house startups, such as Sony. In addition, it has established a business alliance with the group's venture capital (VC) arm.

Other platforms, such as kibidango (Operator: Kibidango, Inc.) and zenmono (Operator: enmono Co., Ltd.), also focus on projects related to manufacturing startups.

However, in Japan, the record amount of reward-based crowdfunding is still only in the \(\frac{4}{30}\) million range, while the accumulated amount is no more than approximately \(\frac{4}{2}\) billion (based on the report prepared by Yano Research Institute Ltd. in 2014). This accumulated amount actually falls short of the top funded case of Kickstarter in the United States. There was a case in Japan of a project that attracted more than a record of \(\frac{4}{40}\) million. However, it was unable to get off the ground because its target was not met. As this case and other examples show, certain instances of crowdfunding are plagued by opaque and inappropriate operations. There appear to be issues that require improvement in a variety of aspects.

There was one incident that spoiled the wider use of equity-based crowdfunding, which was expected to play a leading role in fund raising along with reward-based crowdfunding. In this incident, authorities issued Crowd Securities Japan, Inc. an order to suspend its business operations. Crowd Securities was preparing to launch equity-based crowdfunding, but it ultimately received this order largely because of a problem with its internal control structure.

Considering the fact that currently risk money is readily available, the need for equity-based crowdfunding may not be so high at this time. However, there is a need to develop equity-based crowdfunding in preparation for the time when the funding environment becomes more limited.

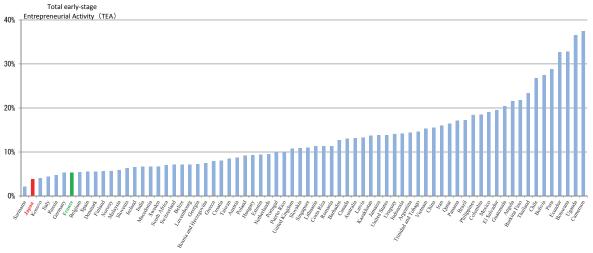


### Feeling the Blues in France

President Ryuji Ichikawa Venture Enterprise Center, Japan

VEC relies on reports prepared by the European Venture Capital Association (EVCA) about trends and other matters related to venture capital (VC) investments in Europe. With the courtesy of the French Embassy in Tokyo, we recently obtained the February 2015 report "France, a favourable country for the development of start-ups?" prepared by the Compagnie Française d'Assurance pour le Commerce Extérieur (COFACE). Based on this report, I would like to introduce certain aspects about the domestic situation in France.

As indicated in the graph below, the rate of startup activity in the Global Entrepreneurship Monitor (GEM) survey (an indicator that shows the activeness of startup activities in each country, the Total Early-Stage Entrepreneurial Activity (TEA)), France ranks as low as Japan.



(Global Entrepreneurship Monitor 2014 Global Report)

In response to the question "Fear of failure prevents people from setting up businesses" in the GEM survey, 43% of all French respondents said "Yes." In contrast, this percentage among Americans and the British was 33% and 38%, respectively. About 44% of Japanese respondents have this fear, a percentage that is just as high as the French. The COFACE report states, "Before 2013, failure was treated seriously, and entrepreneurs who went through liquidation in accordance with the Corporate Rehabilitation Act were put on a black list by French banks. Although an effort was made to restore their honor from failure from 2013, entrepreneurs with a history of failure continue to have difficulties completing banking transactions when they want to start new activities." Just like in Japan, it seems that France has an environment in which taking renewed challenges is difficult for people who have experienced failure. Likewise, in response to a question "Do you believe an opportunity will arise in the next six months to start a venture in the area where you live?" in the GEM survey (perceived opportunities), only 29% of French answered "Yes." The rate is higher at 53% among Americans, 44% among the British, and 42% among Germans. For Japanese, the rate is extremely low at 9%.

Here I will introduce an excerpt from the interview with, Monsieur Tanguy de la Fouchardière, the Vice Chairman of France Angel, that appears in the COFACE report.

Q: What is the most significant brake on the development of venture capital in France?

A: Half of the Business Angels surveyed for the Barometer France Angels/BFM Business in 2014 said that regulatory and fiscal uncertainty was the main brake on the development of their investments. In second place was the legal framework's lack of visibility and insufficient fluidity in the funding chain (for example between the Business Angels and investment funds) which makes it difficult to pass from one to the other.

Among the factors for improvement they would like to see: making it easier to bring investors together (especially Business Angels during the first funding rounds in the life of a company and accordingly establishing relations with Venture Capitalists to finance the development of start-ups) and having a regulatory framework that remains stable over the medium term in order to encourage investments.

Q: Does the ICT sector occupy a dominant position in your investments?

A: The digital sector and the Business Angels are at the heart of innovation. This is all the more important now that, in an increasingly globalised economy in which digital technology has no borders, it has become indispensable to the emergence of tomorrow's champions. Where the constant search for permanent gains in competitiveness cannot take place without innovation, the latter likewise cannot take place without financial investment. The Business Angels who are members of networks affiliated to France Angels are by definition closely associated with the digital universe (which represented 60% of annual investments in volume and value terms in 2013). This is explained by the fact that the Business Angels are there as guides to innovation before being investors. And that innovation as a concept is not just about technological advances, but has now been superseded by the idea of innovation in use and process.

Q: What key characteristics must a young company have to attract attention?

A: The main criteria for attracting a Business Angel include:

- (1) The market targeted by the company and its size;
- (2) The added value of the offer compared with the existing offer, its innovative nature;
- (3) The project's credibility;
- (4) The cohesiveness of the team;
- (5) The growth prospects;
- (6) Exit opportunities for the Business Angels.

It is important to remember that Business Angels intervene at the very start of the marketing phase of the product/service when the projects are still immature and the business model can evolve. This assumption of risk is one of the difficulties of their action.

Q: Do you see appearing specific competition from the new participatory funding modes?

A: Participatory finance on the whole complements rather than competes with the actions of the Business Angels in serving the business community and developing the local economy. The crowdfunding platforms represent new opportunities for individuals wanting to invest in young innovative companies. They can also offer new methods of co-investment for the Business Angels, as participatory finance is not always positioned on the same types of project as those financed and accompanied by the Business Angels. So, the latter have considerable professional expertise (entrepreneurs, senior managers, engineers, ...), are very focused on innovation and tend to be attracted by projects with a B2B business model. Conversely, individuals investing via crowdfunding platforms are rarely experts and need to see themselves as a potential customer for the product or service proposed by the company before deciding to invest. They thus come in on business projects in which the Business Angels are not necessarily positioned.

In addition, the report also contains an interview with Monsieur Vincent Lepage, the Chief Technology Officer of AlephD, a startup that specializes in real-time advertising. The following is an excerpt from that interview

Q: Common knowledge, the French would be risk averse.

A: I am not sure that risk aversion of French people is still as strong: students of the best schools today are dreaming about creating the next Facebook or Criteo, not working in a large bank or a large strategy firm. Accepting failure as a normal step, even rewarding in a CV, also removes a barrier.

Q: Do you consider the French environment favorable to your development? Have you considered the expatriation of your company?

A: The environment in France is rather favorable, mainly thanks to the skills that one can find, relatively inexpensive in terms of salaries in Silicon Valley. However, our market is not located in France, which has forced us to quickly prospect export markets, first in Europe and in the United States today. In 2015, we should do more than 70% of our turnover from exports. But, the heart of R&D and technology remains in France, where the conditions to recruit and employ are better for these IT and data sciences jobs.

These interviews reveal a trend among young people of abandoning the idea of joining large companies and embracing the idea of "Born Global" in which people set their sights on the global market. They also highlight the importance of the using the strength gained from failure. The issues mentioned in these interviews have all been discussed often Japan. It can be said that a major wave of using startup companies, instead of only focusing on large companies, is starting to rise in France as well. I can also see the expectations of other parties and investors, the expectations for industrial reorganization, the expectations for the emergence of crowdfunding, and the expectations for steady managers of startups. These developments are also potentially great guides for Japan, which is striving to move out of this similar gloomy stage.



### **Learning from Israel**

President Ryuji Ichikawa Venture Enterprise Center, Japan

I had an opportunity to visit Israel in early March 2015. While I was there I held individual interviews with organizations and people that create a venture eco-system, including the Ministry of Economy, a former official of the Ministry of Economy, incubators, venture capital (VC) firms, and entrepreneurs. These interviews made me strongly feel that there are many things Japan can learn from Israel. Media coverage about Israel tends to focus mainly on political relationships, but Israel's fundamental economic strength is also worth noting.

Israel only has a population of approximately 8 million, and in terms of area is roughly the same size as the island of Shikoku. However, it is an advanced economic and scientific technological country that ranks at the top or near the top in the world in VC investment amount per capita, the ratio of the R&D investment amount to GDP, the number of non-U.S. companies listed on the NASDAQ in the United States, and the number of laureates who received the three Nobel science awards. It is also a country that is believed to have more than 8,000 startups. We were told that the Minister of the Economy is an entrepreneur who has experience with two exits.

I had heard that the factors that facilitated the development of startups in Israel were the immigration of highly qualified Jewish engineers and scientists from Russia to Israel as a result of the collapse of the Soviet Union in the 1990s, and the cutting-edge research and development and creation of human networks through military service. In regards to these points, I was able to obtain information directly from a former official of the Ministry of Economy who designed the system in the early days. During the peak time of immigration, the population apparently grew by between 10 to 15% over a period of a few years. I asked if language posed any problems during this period of intense immigration, and this official indicated that language proved to be the biggest obstacle, saying: "They could only speak Russian. We quickly helped them learn Hebrew. Women seemed to have adapted to their new surroundings more quickly." I thought the immigrants would be taught English, so hearing about the teaching of Hebrew was somewhat of a surprise.

After I heard the history of policy from the former official of the Ministry of Economy, on the following day, I met an active bureaucrat of the Ministry of Economy. During the meeting, I was slightly surprised when the bureaucrat clearly said, "We have now adopted new methods that are different from those previously used." It is true that Yozma (government funds whose name, Yozma, means "initiative" in Hebrew) that were once well known have now been privatized, and several incubators that were established under the leadership of the government have also been privatized. This development really made me feel that Israel swiftly responds to changes in the current environment and adapts its policies.

When making appointments in Israel, it is better to do so by providing a sufficient amount of leeway in between. This is because when meetings are held, people always say something like "For that subject, you should meet so and so." Then they contact the person, who says something like "Well since they're recommending me, I can meet with you." This flow of introductions quickly leads to a number of appointments. I think that Silicon Valley used to be like this. According to people up to speed with the latest developments there, it is now impossible for people to make appointments in Silicon Valley unless you have the right connections or business matters to discuss.

Overall, the venture eco-system in Israel is functioning well. There are a large number of technology startups, including those in IT security, drug discovery, medical care, welfare, energy, and manufacturing. The most popular of these are academic startups. For this reason, startups in Israel have grown significantly in the sectors in which Japan needs to expand in the future. I believe that there are many things that Japan can learn from Israel. In July 2014, then Minister of Economy, Trade and Industry Toshimitsu Motegi visited Israel. He signed a memorandum concerning industrial R&D cooperation with the Minister of Economy of Israel. With the subsequent visit of Prime Minister Shinzo Abe in January 2015 and other developments, cooperation between the two countries is expected to grow in the future. Japanese companies have practically no business presence in Israel. The only one is Samurai Incubate, Inc., which has an office on one of the main streets in Tel Aviv and plays an active role in bridging between Japan and Israel. Their decision to set up an office in Tel Aviv reflects their great foresight. According to Samurai Incubate, recent active business development by China and South Korea in Israel is outstanding, while Japanese companies are lagging behind.

After actually visiting Israel, I thought that it would be best to clear up several misunderstandings people have about the country.

### <u>Visiting Israel is dangerous because of the wars taking place with surrounding Arab nations.</u>

Things may be different in the Gaza Strip and other areas near the borders, but as long as you stay inside Tel Aviv, there is really no sense of being in a warzone. Tel Aviv is a city facing the Mediterranean with a population of approximately 400,000, making it the second largest city in Israel. It is a major commercial center, and there are many high-rise buildings in the city. It is also a resort destination with a number of exclusive hotels, such as Hilton and Sheraton, located along the beach.

### Once an Israeli entry or exit stamp is put in a passport, people will become unable to enter surrounding Arab countries that view Israel as their enemy.

Currently no stamps are put directly into a passport. Instead, when visitors enter the country, they receive a small card known as blue card (a white card when leaving the country). After completing immigration screening, visitors press the card against the machine when they pass the gate, which then automatically opens.

### Screening at the airport is so strict that when visitors leave the country, they must come to the airport at least three hours before departure.

After getting out of a car, I was screened by a metal detector at the entrance to the airport building. However, the screening process seems to have been simplified, and I was not even asked to open my suitcases. From the way they looked, the screening did not seem to be a full screening. The only thing that happened at passport control was the exchange of very friendly conversation. Ultimately, because I came three hours prior to my departure, I ended up having to kill time at the airport.

#### However, to be fair, I also experienced some difficulties.

The driver of one taxi I caught happened to be able to speak English, but there are some people who only speak Hebrew and some are not even able to read the Latin alphabet (so one Israeli told me). In fact, it was helpful that many street signs and bus stops were written in the Latin alphabet, but some old-looking signs were only written in Hebrew. In addition, the origin of Hebrew and Arabic is the same and they are written from right to left. I was puzzled when I used the Internet for the first time in Israel because I could not find a vertical scroll bar, but I then realized that it was actually on the left of the screen.



### The Resurgence of Germany (Part One)

President Ryuji Ichikawa Venture Enterprise Center, Japan

The German manufacturing industry has experienced a resurgence that extends beyond the framework of companies, driven by the industry-government-academia promotion of the digitalization and networking of production processing (the smart factory) and "Industrie 4.0" (the fourth industrial revolution), and the minimization of production costs. There also is a case in Japan where a construction machinery manufacturer manages information about their own products around the world, and uses it to improve the utilization rate and reduce maintenance costs. However, the most significant feature of "Industrie 4.0" is that promotion moves beyond the framework of a company.

Promotion of Industrie 4.0 is supported behind the scenes by the education and training system. This system is referred to as the "Duale System" in German, and it is a kind of a dual academic-corporate vocational education training system. Simply put, it is the system in which for one week high school students take lessons in the classroom at school for one to two days, and then receive vocational training from participating companies for the remaining three to four days. It is reported that one benefit of the system is that it improves the motivation of participating students toward jobs far more than ordinary students who do not take part. In Japan, by referring to the dual system in Germany, a Tokyo Metropolitan technical high school in Ota-ku, Tokyo established its own "Tokyo dual system" modeled after the German system. This school has been running system over the last ten years in a trial and error fashion, slowly fixing it over time. I have also heard stories of the challenges faced by teachers who experience a heavy burden when a system that has never been tried in Japan is actually put into operation. In addition, if an attempt was made to introduce the system nationwide, there would be the problem of the unavoidable distance between schools in the rural regions and participating companies. Incidentally, there are reports that Germany is working to develop the "Duales Studium" on the university level.

"Fraunhofer Venture", a commercialization support organization of the Fraunhofer-Gesellschaft in Munich, is one particularly well known example of support for startup companies in Germany. It is reportedly facilitating spin-offs by supporting the matching of researchers who do not have experience in managing companies with external management human resources.

I spoke about these matters with a German researcher at an international conference. That researcher told me that the "Steinbeis Foundation" is also actively involved in efforts to support startups. According to the Steinbeis Foundation website, the institute has its headquarters in Stuttgart and boasts more than 30 years of experience as one of the most successful technology transfer organization in the world. The Steinbeis Foundation has a global network of approximately 1,000 companies, and is supported by 6,000 experts. It appears to provide problem-solution services to customers by offering prompt access to cutting edge technologies and know-how to address the wide range of problems that customers face.

The "Neuer Markt", a stock market for startups in Germany, was closed in 2002 following the collapse of the IT bubble. As a result, it is said that it is currently hard for startups to make stock offerings, and exits are mainly carried out through acquisitions by large companies. It is also reported that the activities of venture capitals are sluggish, making it difficult to say that a venture eco-system based on the Silicon Valley model in the United States has been developed. However, with the recent spotlight on Industrie 4.0, startups in the manufacturing and biotechnology sectors are expected to grow through the application of German methods in the future.

# The Resurgence of Germany (Part Two)

President Ryuji Ichikawa Venture Enterprise Center, Japan

The first part of this section highlighted the superior features of Industrie 4.0 and the Duale system underlying the resurgence of Germany. The German Federal Government also appears to be eagerly looking for innovation promotion policies that are unique and different from those of Silicon Valley.

In 2006, the government established the "Expertenkommission Forschung und Innovation (EFI)" with Professor Dietmar Harhoff, PhD., the Director of the Max Planck Institute for Innovation and Competition, acting as the Chairman. Since then, the EFI has submitted proposals about innovation promotion policies directly to German Chancellor Angela Merkel every year. It is a high-level commission composed of members who are all professors with doctoral degrees.

I was able to participate in the workshop recently held by commission members while they were in Tokyo as part of their official visit to Japan and South Korea. Lectures from Japanese participants, including a speech I gave, covered the recent business models of IT startups in Japan, startup promotion policies in Japan, and the current state of venture capital (VC) firms in Japan. In the discussions after the lectures, the topics tended to focus largely on the slow change in the traditional Japanese education and labor environment and the entrepreneurial spirit of Japanese young people. In addition, the commission members listened attentively to the discussion of Prime Minister Shinzo Abe's visit to Silicon Valley and the "Project for a Bridge. This YEARBOOK will also play a role in facilitating global understanding about Japan.

Now we will take a brief look at the "Report 2015" the EFI announced in February 2015.

The report stated that Germany's venture capital market was far less developed than markets in the United States and many European countries, and that the Commission of Experts welcomed the fact that the Federal Government was planning several measures to improve the international competitiveness of the framework conditions for venture capital in Germany. The Commission of Experts particularly welcomed the Federal Government's announcement to revise the restrictive tax regulations for the treatment of carried-over losses. In addition, it opposed tax increases and other measures that would reduce the incentives of startups, while also suggesting that new restrictions regarding investment opportunities for insurance companies and pension funds need to be avoided. In addition, the commission proposed that the Federal Government's plan to create a growth financing fund for German startups via the European Investment Fund (EIF) should be implemented without delay.

As for the cluster policies that have been adopted over the last twenty years, the commission concluded that the policies demonstrated there was great innovation potential emerging from financing R&D cooperation projects between large companies and SMEs, and therefore these forms of collaborations should be supported. In regards to the clusters it advocated, the commission also stated that the Federal and Länder governments should aim to avoid excessive focus on regional partners and strive to create transregional networks, proposing the internationalization of clusters. The commission further called for an assessment of the medium and long-term effects of the clusters, and proposed that systematic monitoring be implemented.

In regards to digital innovation, the commission stated that the current copyright regulations were extremely complex, and therefore it urged the Federal Government to simplify copyright provisions and make them more transparent. It proposed sending violation alerts as a useful alternative to the common practice of issuing formal warnings. The commission also suggested that the legal claim for the reimbursement of the costs stated in a formal warning be tied to the condition that a prior violation alert must have been sent via the Internet service provider to the infringer.

The commission had a high opinion of 3D printing with its potential disruptive power. It suggested that interdisciplinary research collaboration (such as with material sciences and nanotechnology) at higher education institutions and non-university research institutions be strengthened via appropriate measures, and that further support should be provided for technology transferred to businesses should also be supported further. Within the context of promoting Industrie 4.0, it also stated that 3D printing held great potential, and that best practice examples should collected and support measures provided in a systematic manner. The commission urged for unresolved legal issues related to 3D printing, such as liability, to be clarified right away, and recommended that the Federal Government set stronger incentives for developing quality standards. In addition, it also suggested that skills related to using 3D printing be taught throughout the vocational education and training system.

Having gone through these proposals, we find there are a number of proposals that Japan also shares. This is probably because both Japan and Germany examine issues from the supply side. In contrast, Silicon Valley focuses on changing the world from the demand side. As a result, the general public is able to go along with these changes

more easily, and it appears their social impact is far reaching workshop brought to my attention.	. These are some of the things that participating in the

### Chapter II. Japanese Startup Business Survey

### **Overview**

Following on from the 2014 survey, VEC conducted the "Survey on the Startup Business Environment (2015)," covering startup companies established within the previous five years. The following table provides an overview of the survey. VEC conducted the survey by postal mail until 2014. From the 2015, it switched to an online format.

Summary of the survey			
Target companies	Startup companies established within the previous five years		
Survey collection period	June 3 <sup>rd</sup> – July 1 <sup>st</sup> , 2015		
Survey method	Web survey		
Number of companies surveyed	1,618		
Number of companies responded	277		
Response rate	17.1%		
Valid number of companies responded	269 ※1		
Valid response rate	16.6% ※2		

<sup>\*1</sup> Excludes the startup companies over five years since establishment

The following table shows the number of responding startup companies that received funds from venture capital (VC) firms after they were established, and those that did not.

Number of Responding Companies receiving/without VC investments

	Number of responding companies
Receiving VC investments	94
Without VC investments	175
Total	269

Please note that there is a large gap between the number of companies included in "Received VC investments" and those included "Without VC investments." Each figure lists the number of valid responses to the corresponding survey.

<sup>%2</sup> Valid response rate of the survey in 2014: 10.6%

### 1. Profiles of Responding Startup Companies

#### (1) Industries

In terms of the industries of all responding companies, the Computers and Peripherals/IT Services industry accounted for the largest proportion of responses, or approximately 40%, followed by the Software industry. In regards to the Biotechnology/Medicine industry, there was a slight difference, with companies "Receiving VC investments" accounting for 7.4% and those "Without VC investments" accounting for 2.9%. However, the percentage was nearly the same in other industries.

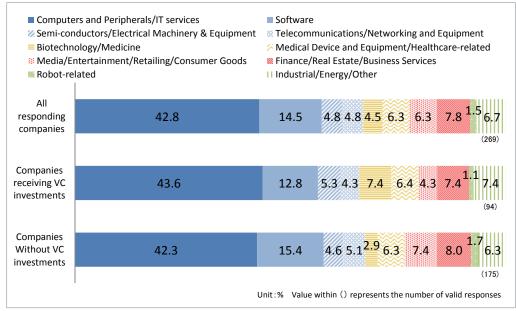


Figure 2-1-1 Industry Distribution of Responding Companies

### (2) Stage

There was no significant difference in distribution by stage between companies "Receiving VC investments" and those "Without VC investments." The Early stage accounted for more than 50%, while the Seed stage and the Expansion stage were nearly the same, with each accounting for approximately 20%. Looking at the breakdown by the stage, similar trends have been observed in the data of the previous surveys. This distribution percentage is considered to be one of characteristics of the data of this survey. In addition, one of the reasons why the number for the Later stage is extremely low is believed to be attributable to the scope of the survey, which is limited to companies established within the last five years.

Reference: The stages in VEC's survey are defined as follows.

Stage	Definition
Seed	Companies undergoing research and product development but has yet to establish a commercial business operation.
Early	Companies with product development, and the early stage of marketing, manufacturing and sales promotion.
Expansion	Companies that have started production and shipment with its inventory and/or sales growing in size.
Later	Companies that have a continuous cash flow and are nearing the stage for IPO.

Seed Early **Expansion** Later 1.5 All responding 22.7 54.6 21.2 companies (269)Companies 56.4 19.1 receiving 21.3 3.2 VC investments (94) Companies 23.4 53.7 22.3 0.6 without VC investments (175)Unit:% Value within () represents the number of valid responses

Figure 2-1-2 Stage Distribution of Responding Companies

### (3) Stage and the Number of Employees

Looking at the number of employees (including irregular employees, such as officers, dispatched workers, and part time workers) by stage, overall the employment scale of more than 50% of the companies in the Seed and Early stages was "Between one employee and five employees." The later the stage, the greater the number of employees, and there were companies in the Expansion and Later stages with "Between 101 and 300 employees."

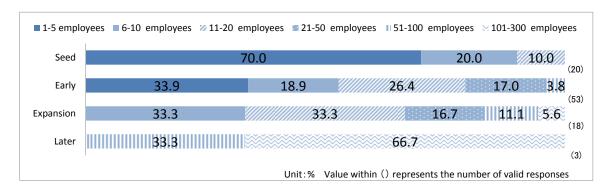
In addition, the scale of the business organization of companies "Receiving VC investments" was greater than those "Without VC investments." In particular, there were no companies in the Expansion and Later stages that had five employees or less. However, considering the fact that 66.6% of companies in the Expansion stage were those with 20 employees or less, in terms of the number of employees, there was a large number of small-scale companies.

■ 1-5 employees ■ 6-10 employees ≥ 11-20 employees ≥ 121-50 employees ≥ 151-100 employees ≥ 101-300 employees Seed 8.2 3.3 68.8 19.7 Early 51.1 20.4 24.6 5.3 3.5 Expansion 28.0 22.8 15.8 (57)25.0 Later 25.0 50.0 Unit:% Value within () represents the number of valid responses

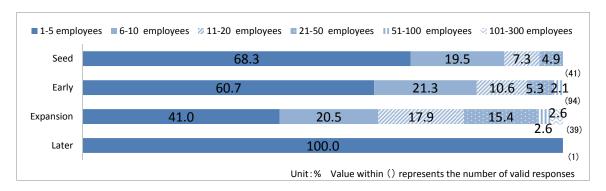
Figure 2-1-3 Employee Distribution of Responding Companies by stage (All responding companies)

(Continued on next page)

### (Companies receiving VC investments)



### (Companies without VC Investments)



### 2. Status of Business Development

### (1) Overseas Business Development

Companies that had already expanded into overseas markets (sales and procurement) accounted for 24.9% of overall responding companies. Of these companies, those that had overseas bases accounted for 9.3%.

Looking at companies and whether they received VC investments, the percentage of companies "Receiving VC investments" and that of companies "Without VC investments" were nearly the same for companies that had already expanded into overseas markets. However, for companies that had already had overseas bases, the percentage of companies "Receiving VC Investments" was approximately double that of companies "Without VC investments."

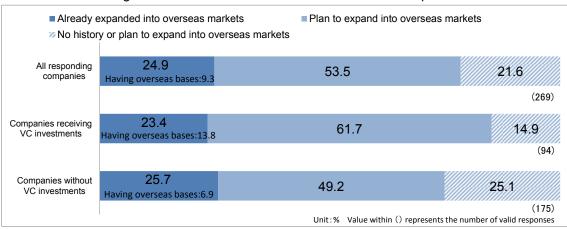


Figure 2-2-1 Status of Overseas Business Development

In regards to regions where companies had existing overseas businesses, Asia as a whole made up the largest percentage, accounting for 47.1% (Figure 2-2-2). Here, Asia consists of China, Southeast Asia, and Other Asian Regions. Of these, Southeast Asia was the largest.

Looking at companies whether they received VC investments, Asia accounted for an even higher percentage of companies "Receiving VC Investments," standing at 59.2%. This was approximately 1.4 times the percentage of companies "Without VC investments," which stood at 42.0%. In recent years, Asia has been attracting attention as a venture investment market, and the number of companies which receive VC investments that are expanding their operations in Asia will probably continue to increase in the future.

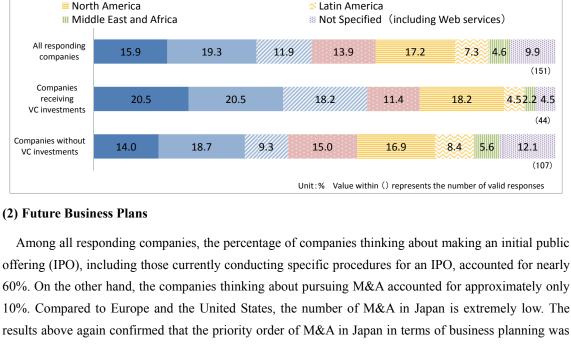


Figure 2-2-2 Existing Overseas Business by Region

■ Southeast Asia

Europe

China

Other Asian regions

offering (IPO), including those currently conducting specific procedures for an IPO, accounted for nearly 60%. On the other hand, the companies thinking about pursuing M&A accounted for approximately only 10%. Compared to Europe and the United States, the number of M&A in Japan is extremely low. The results above again confirmed that the priority order of M&A in Japan in terms of business planning was clearly lower than IPOs.

In addition, in the group of companies "Receiving VC Investments," the percentage of the companies thinking about making an IPO reached 75.5%. This showed that a large number of the companies receiving VC investments were eyeing IPOs.

On the other hand, in the group of companies "Without VC investments," the percentage of companies thinking about making an IPO was even less than 50%. In addition, it became clear that more than 40% of the companies were not considering IPOs or M&A.

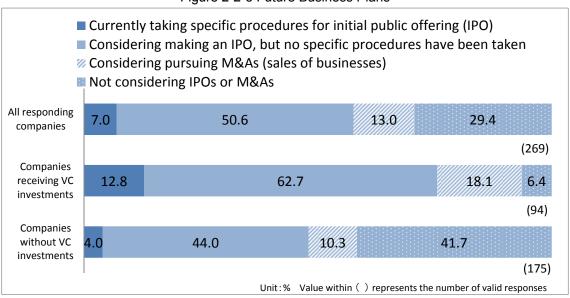


Figure 2-2-3 Future Business Plans

### 3. Status of Fundraising

### (1) Status of Fundraising Since Incorporation

An analysis of the fundraising since incorporation (Figure 2-3-1) reveals that the majority of companies (both companies with VC investments and those without) were provided funds by Founder, Family, and Friends. For the rest, there were no sources of funds that exceeded 50%, and there was no concentration on any specific source. This indicates that startups use a variety of sources to raise funds.

Next, looking at the percentage of the amount of funds raised since incorporation (Figure 2-3-2), Venture capital accounted for the largest among all responding companies, followed by Private corporations. As for Founder, Family and Friends, the percentage of the number of fundraisings far surpassed 80%, but the percentage of the amount did not reach 10%, indicating that the amount of funds raised per each instance of fundraising was small.

Looking at companies based on the situation of VC investments, for companies "Receiving VC Investments," the amount of funds raised from Venture capital accounted for approximately 50% of the total funds raised.

For companies "Without VC investments," the amount of funds raised from Private corporations accounted for 29.4%, while that from Banks/Shinkin banks/Credit unions accounted for 24.8%. The total of these two sources of funds accounted for more than 50% of the total amount of funds raised.

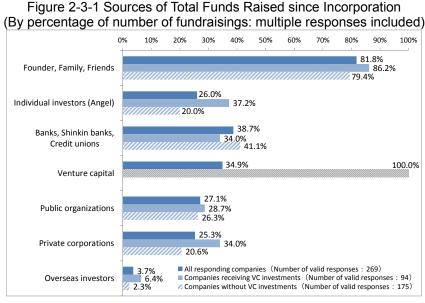
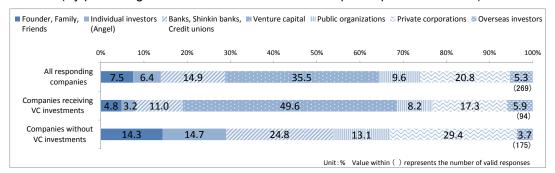


Figure 2-3-2 Sources of Total Funds Raised since Incorporation (By percentage of amount of funds raised: multiple responses included)



### (2) Status of Fundraising during the Most Recent One-year Period

Looking at the percentages of the fundraising sources during the most recent one-year period (Figure 2-3-3), the percentage of Founder, Family, and Friends was the largest among all responding companies, followed by Banks/Shinkin banks/Credit unions.

Looking at companies "Receiving VC Investments," for those that have received such investments since incorporation, the percentage that had received funds from VCs over the most recent one-year period was 70.2%.

For companies "Without VC investments," the percentage that had not received funds over the previous one year was high at approximately 30%.

Looking at the percentage of the amount of funds raised during the most recent one-year period (Figure 2-3-4), Venture capital accounted for the largest among all responding companies, followed by Private corporations.

The percentage of companies "Without VC investments" that received funds from Private corporations was not necessarily large at around 10% by number, but the percentage by amount accounted for 30%, making the Private corporations the largest source of funds provided.

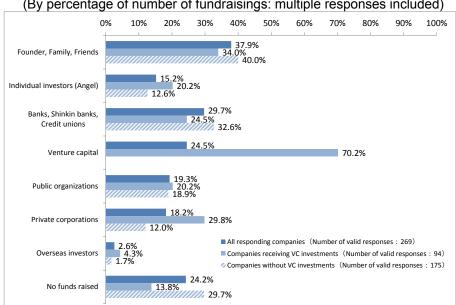
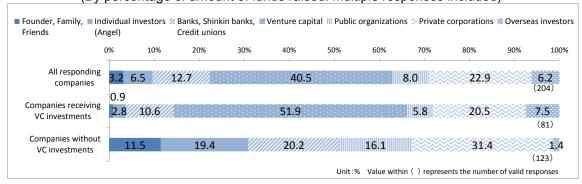


Figure 2-3-3 Sources of Total Funds Raised during the Most Recent One-year Period (By percentage of number of fundraisings: multiple responses included)

Figure 2-3-4 Sources of Total Funds Raised during the Most Recent One-year Period (By percentage of amount of funds raised: multiple responses included)



### (3) Forecasted Sources of Future Funds

The percentage of responses that indicated Venture capital as the forecasted source of future funds was the largest among all companies (both companies with VC investments and those without).

Looking at companies based on the situation of VC investments, for companies "Receiving VC Investments," the main choices for the forecasted sources of future funds after Venture capital were Private corporations and Banks/Shinkin banks/Credit unions. It is assumed that expectations for Private Corporations reflected venture investments by business corporations (CVC investments), which have recently become active.

On the other hand, after Venture capital, companies "Without VC investments" have strong expectations toward Banks/Shinkin banks/Credit unions.

Expectations for VCs are very strong. However, in some of the interviews conducted by VEC with startup companies and VCs, certain people indicated it was difficult for hardware manufacturers and other manufacturing companies to receive investments from VCs because the manufacturers required large amounts of funds, it would take a long time before businesses got on track, and because it was difficult to foresee whether businesses would be successful.

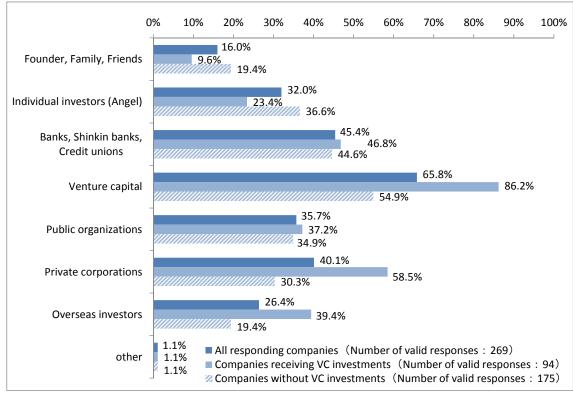


Figure 2-3-5 Forecasted Sources of Future Funds (multiple responses included)

### 4. Needs of Startup Companies

### (1) Present Management Needs

The most important management need of startup companies was staff recruitment. This need varied very little between companies with VC investments and those without. Staff recruitment also ranked at the top of needs in past surveys, indicating that securing human resources is an important issue for startups.

Looking at companies based on the situation of VC investments, companies "Receiving VC Investments" exhibited a greater need for each item than companies "Without VC investments." The only exception was sales channel expansion, for which companies "Without VC investments" had greater need than companies "Receiving VC Investments."

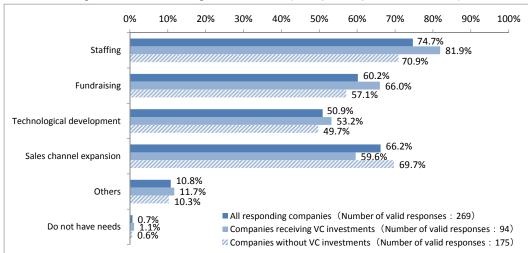


Figure 2-4-1 Management Needs (multiple responses included)

### (2) Staffing Needs

Among all responding companies, the mostly sought after human resources were staff members in charge of sales and sales promotion, followed by staff members in charge of technological development. Both of these were required by more than a half of the responding companies.

Looking at companies based on the situation of VC investments, the percentage of needs for managers—such as Chief Operating Officer (COO), Chief Financial Officer (CFO), and Chief Technology Officer (CTO)—was high among companies "Receiving VC Investments." In particular, the need to recruit CTOs was noticeably high. This shows that a high percentage of companies "Receiving VC Investments" are eyeing IPOs (See Figure 2-2-3), and that they need to recruit more human resources that can take responsibility in order strengthen the organizational structure. In regards to technological development, companies had strong needs for not only managers but also staff members. Together these accounted for 63.6%, making them the most important recruitment needs. It is apparent that companies "Receiving VC Investments" faced a shortage of human resources in the area of technological development.

Needs for staff members in charge of sales and sales promotion were high among companies "Without VC investments." This reflects the management need for sales channel expansion that was described previously.

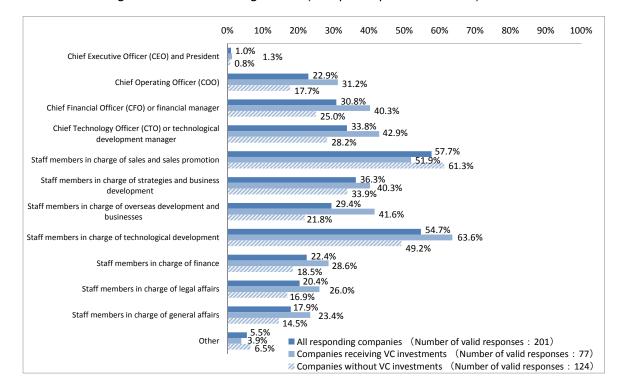


Figure 2-4-2 Staffing Needs (multiple responses included)

## **5.** Requests to the Government and Other Institutions on Policies for Creating and Growing Startup Companies

The survey asked startup companies to provide, in an open text format, their wishes and requests for policies of the government and other institutions. Of the 269 companies that responded to the survey, 82 companies responded to this particular request (30.5% of respondants). The following is a summary of the results.

### (1) Subsidies, Loan Facilities, etc. (15 companies)

One of most mentioned requests in the responses, accounting for the largest percentage, was in relation to subsidies and loan facilities. The companies expressed their views, stating that large amount of documents provided containing information related to subsidies made it difficult for the companies to understand the policies. They also indicated that a system in which startups can receive funds before they commence operations needs to be established, stated that information is not well publicized, and complained that only a limited number of companies are able to receive subsidies.

### (2) Regional Areas (15 companies)

Comments regarding regional areas attracted the same number of responses as those related to subsidies and loan facilities. Survey respondents called for local government to directly develop specialists who have an extensive knowledge about financing, and that information about attractive regional features, such as regional lifestyle models not found in their cities, an environment that allows companies to focus on business development should be released widely to the public. They also called for local governments to develop and manage plans that offer merits to the existing companies, such as inviting industries and other activities that will bring people to regional areas.

### (3) Tax System (8 companies)

In regards to the tax system, there were many comments related to tax benefits. More than one person asked for tax benefits to be strengthened for startups that have been in the early stages since they were founded.

### (4) Human Resources (7 companies)

Unlike other themes, there were many comments from several different viewpoints. One comment related to entrepreneurs claimed that extensive support needed to be provided to serial entrepreneurs. There were also comments about recruiting human resources, with people indicating that Japanese employment laws need to be improved because they become an obstacle when recruiting competent human resources from other countries. In regards to investors, people claimed there was a need to develop investors that are viewed as startup investors based on their business vision and use of technologies, rather than business history.

### (5) Fundraising (5 companies)

Many comments related to fundraising indicated that support was lacking. In sectors that needed it support was insufficient. Some said that adequate funds were needed to support and encourage sizable businesses involving the manufacture, research, and development of hardware and other products.

### (6) Matching (4 companies)

There were comments about matching with large companies that the government has focused on in recent years. Like Silicon Valley, people said that existing large companies which began as startups need to establish a foundation that provides support for startups in Japan. Instead of running a program that ends when a match is made, some argued that it would be better to have a system in which companies that expect a mutual synergistic effect can quickly establish an alliance.

### (7) Others (28 companies)

There were a variety of other comments in addition to the previously raised points. Some discussed the provision of support based on the stage of business progress, claiming that it would be better to not only have support for establishing businesses, but also for ensuring the growth of businesses after they are established. There was also a requests related to improving the business environment, asking for support to be provided to reduce the burden of security deposits when moving to a larger office in a short period of time. More than one person said that they continue to expect support from the government and venture

investments in the future.

In recent years, the government has led a number of related institutions in actively offering startup support. Currently, a diverse range of subsidies and loan facilities systems are provided by a variety of entities, such as government affiliated financial institutions and local governments. However, certain startups also indicated that they experienced difficulties in using those support systems. There are also some who feel that issues remain in certain areas, such as whether information is adequately and broadly given to startups or whether systems have been developed in a user-friendly manner.

VEC will continue to conduct this survey in the future in an effort to understand the business environment and needs of startup companies. It will also release information to all parties concerned that will help improve the business environment in which startups operate.



### Globalization Holds a Significance of its Own Without Needing to Tackle Challenges in Overseas Markets

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Until the mid-1980s, it was believed that the only companies capable of tackling challenges in the overseas market were those that had fully developed in the domestic market and possessed adequate management resources. However, from the early 1990s, it became evident that certain companies, which can be called emerging international companies, were able to globalize not long after they were founded.

This trend is said to have grown at an accelerating rate since 2000. Now, it is no longer unusual for a company to target the overseas market immediately after it is established and actually develop a structure that supports international development and operations in more than one country, despite having around only a few dozen employees.

#### **Globalization to Achieve Growth in the Home Country Market**

VEC conducted the Japanese Startup Business Survey in 2015. Despite the fact that the target companies were those that had been established in the last five years, approximately 25% of the responding companies stated that they were already engaged in overseas sales and procurement (see page I-109). Including the companies that had plans to develop overseas businesses in the future, the survey showed that nearly 75% of startups had established and were managing businesses with an eye on developing businesses in other countries (see page I-109).

It is important to note that even though these companies are examining opportunities to develop overseas businesses, it does not necessarily mean they are aiming for rapid growth or seeking to tackle challenges in the overseas market. Globalization still holds significance even for companies that only have products and services with a limited capacity to compete globally and lack adequate management resources to tackle challenges in the overseas market. One reason it is worth exploring opportunities to develop global operations is that it helps companies improve their competitiveness in the market of their home country.

Globalization does not only mean engaging in overseas sales. In fact, a number of companies that manage overseas businesses not only engage in overseas sales, but also overseas procurement. Many companies only sell in their home country market, while engaging in procurement in the overseas market. It is believed that using overseas business opportunities to beat the competition in the domestic market represents an option that is available to any startups.

The idea of procurement also has a much broader scope that goes beyond the concept of manufacturers merely procuring parts and materials. Global procurement not only applies to manufacturing companies, but also companies that provide services. Actively forming alliances with companies other than those that provide services in Japan will enable companies to provide quality services at prices more reasonable than those offered by other companies.

#### **Quick and Easy Globalization Is Now a Reality**

It is no longer difficult for companies to go global. For example, one startup has its headquarters registered in Hong Kong, uses accountants and lawyers in Hong Kong, but also uses server services in the United States, and has staff members in Southeast Asia that provide services to customers in Japan by cooperating with a software company in India. The company only posted sales of \(\frac{4}{2}\)200 million at the time of the survey, but it is recording sufficient, steady income

These kinds of companies are also known as micro-multinationals. They do not grow rapidly like the startups in Silicon Valley known as unicorns. Micro-multinationals also do not necessarily have the innovative technologies or services that enable them to grow rapidly in overseas markets. However, they work to become more competitive in the home country market on which they focus by establishing contacts with a wide range of overseas management resources, and aggressively globalizing so that they can use these resources.

There is nothing glamorous about the way in which these companies globalize. For instance, one Mexican office that a startup was developing through external advertising had only two dedicated staff members. In fact, there are many cases in which there are no dedicated staff members at local offices. To use an old analogy, this style is reminiscent of the representative offices or liaison offices that were seen in the past. These companies understand the local situation, build up extensive local networks by establishing local offices, and establish a rotation for dispatching staff members from the home country to the offices on business trips.

With the advancement of information technologies and travelling methods, organizational culture and management data can now be easily shared with overseas offices, something which only became possible recently. Visiting local offices once a month can be achieved at the almost same cost as employing one part-time worker. It is also possible to create a virtual space that companies can seemingly share with their overseas offices through the use of video conference applications, such as Skype and appear in, old PCs, and cheap large-screen televisions.

For the majority of startups, the notion of globalization and developing overseas businesses is seemingly a dream that lies beyond success. These startups are grappling with the difficult challenges of the market in their home country, so the idea of tackling an overseas market that presents even larger uncertainties sounds like something far off in the future.

However, in the modern management environment, companies can take their first step towards globalization by adopting a style of management that uses overseas resources. This is a surprisingly small step, and one that will enable them to improve their competitiveness within the market of their home country.

### First Step Towards Globalization Can Be Made Tomorrow

The use of crowdsourcing services, such as Upwork, makes it possible to outsource design to creators in other countries. These services can be used to to create the animated videos that companies need to promote their services. They also provide access to freelance workers around the world who can be hired to conduct surveys and collect information on examples of operations overseas that companies can refer to in creating their own services.

It is very difficult to enter an agreement from scratch with manufacturing plants in China and Southeast Asia. However, it may be worthwhile for companies to invite retirees from large companies as an adviser and outsource manufacturing to overseas companies to make samples or trial products. In this way, they can actually start utilising production capabilities overseas.

There are also simpler choices. One way to look for overseas agencies is to attend overseas exhibitions and set up booths at the exhibitions, or open a store in local Internet shopping malls, such as Amazon. PayPal and WorldPay have also made it surprisingly easy to settle international product transactions. Using the services of delivery companies such as DHL, companies can send their products to even small islands on the other side of the Earth.

These initial steps are all easy to take. Even if companies fail, they will only suffer a minimal amount of damage. These steps can also be taken with limited funds and human resources. To put it bluntly, they're easy enough for student interns to handle.

However, people must take that first step if they want to reach their goal. With these quick and easy steps, companies can aim to go global and run international businesses. If the first step proves successful, they can move on to the next.

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### **Chapter III. Conclusion**

In section 4 (1) of Chapter I, "Collaboration between Large Companies and Startups," the report stated that Japanese large companies are also beginning to view startups as potential partners in open innovation.

The actual examples mensioned in the following section will provide insight into how to establish a collaborative relationship between large companies and startups.

### 1. Actual Examples of Collaboration between Large Companies and Startups

We recently visited Corporation A (Note 1), a large company that had just entered the welfare and nursing care robot sector, and spoke with the manager in charge of promoting the robot business.

Note 1: Corporation A, a major homebuilder, has entered the welfare robot sector by making investments in Corporation B, an academic startup company. Corporation B was later listed on the stock exchange.

<Why did the major homebuilder enter the robot sector?>

A staff member of Corporation A, working in line with the company's policy of focusing on the construction of nursing care facilities, visited a variety of places and studied them. He later became a manager of the public-private collaboration department, and this position provided him with more opportunities to interact with teachers at universities. At the end of October 2006, he happened to meet a university professor involved in the research and development of robots for welfare use. Listening to the professor's explanation, the manager was convinced that the program was useful for people and society. He told the management of Corporation A about this program, in December of the same year Corporation A decided to invest in the program, and invested in February of the following year.

The summary of the interview is as follows:

- The management philosophy of Corporation A is to "consider whether businesses are useful to and appreciated by a large number of people."
- Because the robots for the welfare use were being developed for the first time, Corporation A left all
  the robot research, development, and manufacturing, and maintenance management to the discretion
  of Corporation B. Corporation A acted as a sales agent.
- Corporation A assigned employees in accounting, procurement, ISO operations, business
  management, and an external director (one employee each) to Corporation B. Their assignment
  began when Corporation A invested in Corporation B, and ended when Corporation B was listed on
  the stock exchange.
- Since the launch of the welfare robots, the number of startups approaching Corporation A has increased. More than half of the nine types of welfare and nursing care robots and equipment (Note 2) that have been sold use technologies from startups. Manufacturing is also left to these startups. However, Corporation A has also recently started to develop robots in-house.
  - Note 2: Of the nine types, six were developed by startups, one was developed by a subsidiary of the large company, and the remaining two use technologies that were jointly developed by a large company and universities. When the company started in-house robot development, it had no engineers, but now it has a group of several engineers.

• The welfare and nursing care robot business is not yet generating profits. However, the company commands a top class position in the industry for the medical, welfare and nursing care facilities construction sector, which the company initially targeted.

While this case may be a very special case, it reveals the conditions needed for the successful development of a collaborative relationship between large companies and startups.

- 1) Strong and consistent commitment made by top management
- 2) Prompt decision making
- 3) Cooperation between large companies and startups based on their respective roles Large companies: Using external technologies and the know-how that the large companies involved lack - Open innovation
  - Startups: (a) Using the credit strength of large companies (financing and sales channel expansion),
  - (b) Using the wealth of human resources large companies possess
- 4) Ambitious spirit of large companies that is also shared by startups

### 2. Aiming to Establish a Venture Ecosystem

As the previous example demonstrates, initiatives taken by large companies for open innovation provide startups with opportunities to demonstrate their abilities. If this type of movement continues to grow, expectations for startups are also likely to increase.

Finally, this report will discuss several issues to be addressed in order to establish a venture ecosystem. In order to address these issues, it is essential that startups, VC firms, and other parties involved make their own individual efforts. However, there are also a number of matters that society as a whole needs to tackle.

### (1) Securing and Developing Human Resources and Promoting the Their Flexible Use

In order for startups to grow, the right people must be assigned to do the right jobs. However, as the startup survey shows (See Chapter II), in reality there are a number of startups that face a shortage of human resources (in sales, technology, and management).

In addition, there are growing expectations for academic startups that aim to commercialize and commoditize new technologies by adapting cutting edge technologies and basic technologies universities possess. However, many quarters claim that the most critical point in determining the success of startups is whether they can acquire the right top managers (CEO and COO).

Looking at the VC industry, many believe that it is essential to secure and develop two components. The first is human resources that are able to make mature judgments about technologies. The second is human resources with superior consulting capabilities related to the management of startups.

In this regard, promoting the flexible use of human resources is considered to an effective means for solving the aforementioned issues.

To promote the flexible use of human resources, it is best to create a flexible labor market that has extra capacity that allows parties entering labor agreements to make their free decisions, so long as that is the wish of both employers and employees. In regards to this point, there is a need to change the current structure characterized by the simultaneous recruitment of new graduates, in-house training, and the lifetime employment system in which a rigid labor market is accepted as the base of employment.

The human resources training method of taking time to develop so-called generalists, a practice often seen at large organizations, is suitable for developing a number of optimum employees in companies. However, is this truly the best method in a time of drastic innovation and development? The need for highly professional human resources (with management skills, sophisticated technologies for individual industries, and various other technologies) has been steadily rising, even in large companies. On the other hand, highly professional human resources generally tend to look for work places where they are able to apply their professional capabilities free of restrictions. First, opportunities for self-realization through the development of a flexible employment relationship – increase in non-regular employees and the universalization of changing jobs – must be effectively broadened to create a labor market structure in which "jobs are granted to those who want them."

The need for the flexible use of human resources is not limited to professional positions. It is often said that the success of companies depends on their management teams. It would be no exaggeration to say that the success of startups in particular is determined by whether they are able to acquire the appropriate

management teams. To maintain the optimum management structure, there will be cases in which more flexible recruitment of top managers is required based on the progress in the growth stage of startups.

From the standpoint of startups, the acceptance (including temporary assignment) and use of employees from large companies that possess a variety of human resources, as indicated in the actual example mentioned previously, is considered to be one of the alternatives.

### (2) Education

A number of parties engaged in venture operations often claim that over the last few years, there has been an increasing number of cases in which competent students (including graduate students) directly join startups with high-level technologies after they graduate school, establish startups as part of a team, or join major startups after working at large companies, consulting companies as specialists, and other organizations. As a result, the level of the managers of startups has also been undoubtedly improving.

It is encouraging to hear that there are young people, albeit still small in number, who possess an ambitious spirit eager to test their will, knowledge, and capabilities. In this sense, there are high hopes for education to accelerate this development.

Fortunately, education that aims to provide a wide range of knowledge for establishing startup businesses has become popular at a number of universities and graduate schools. Assuming that other conditions are the same, it has already been shown that providing a greater variety of knowledge helps to fuel the establishment of businesses. It is hoped that this education will further expand in the future.

More importantly, there is also a need to make a basic change to the approach of education in Japan. There is no disputing that providing basic academic skills forms the fundamental basis of education. Yet, it is also right to devote time in education for individuals or teams to develop capabilities to tackle challenges and make multiple proposals for solving the unresolved issues that they are assigned. Likewise, there is also a need to adopt a way of thinking that views failures or setbacks in a positive light, treats them as assets, appreciates efforts to try again.

Many specific proposals must be made, but the keys are the way in which knowledge is applied and the value placed on team play. There is also a need to focus on developing leaders and human resources that can be trusted. This is a tradition Japan has valued since the Meiji era. Therefore, it is important to reevaluate this value because such Japanese tradition has been likely neglected last 70 years.

### (3) Securing Extensive Fundraising Methods for VCs and Steadily Expanding Them

The final goal of the issues as described above should be the involvement of institutional investors.

Currently, there is an overwhelming gap between Japan and the United States in terms of the scale of startups and the volume of VC funds. Therefore, Japan must be prepared to devote significant time and effort before it can begin to close the gap with the United States (pension funds, funds, foundations, and other institutional investors account for around 50% of the fundraising sources of VC funds). No matter how long it takes, Japanese VC market that is attractive to institutional investors must be established.

To accomplish this, the first thing that must be done is to disclose more information about the performance of VC funds. Second, the performance of VC funds (the performance and the volume of funds that are able to compete with rival foreign VC funds, private equity funds, and other funds) must

also be improved.

Since the latter half of 2014, more and more people are saying that venture investments in Silicon Valley are in a bubble state, which has led to growing concern over future development. Moving forward, we must continue to carefully monitor these trends in the United States.

II. Data: Survey on Venture Capital Investment Trends in 2015

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CHAPTER I Survey on Venture Capital Investment Trends

# How to read the charts in this report (points to note)

The charts contained in this report were created based on the results of our survey, which was conducted to find out trends in venture capital and turnaround/buyout investment activities. The following are some points to note in reading the charts.

- Number of VC firms responded to the survey: 106 firms
- "Principal" indicates a principal investing, i.e. investments by a venture capital firm's own account. "Partnerships" or "Funds" indicate investments through funds.
- For turnaround/buyout investment, the aggregate of investments/loans made by both "Principal" and "Partnerships" are given.
- "PE firms" indicate turnaround/buyout investment firms.
- Unless otherwise stated, "N" below the tables indicates the number of VC/PE firms whose responses are incorporated in the charts.
- The year-on-year percentage of change is calculated based on answers from VC/PE firms that provided data for both the previous and latest business years.
- When a denominator is 0 and the value cannot be calculated, "NA" is given.
- In the results of the survey, VC/PE firms that did not provide a response were counted as zero.
- The "Internet of Things (IoT)" in the industry classification overlaps with other industry categories.

# **Classifications for the Analysis**

## **Investment Focus by Stage**

In stage analysis, deals are classified into four stages according to the maturity of the portfolio companies, and three investment strategies. The classifications and its definitions are as follows.

1	Seed	Companies undergoing research and product development but has yet to establish a commercial business operation.
2	Early	Companies with product development, and the early stage of marketing, manufacturing and sales promotion.
3	Expansion	Companies that have started production and shipment with its inventory and/or sales growing in size.
4	Later	Companies that have a continuous cash flow and are nearing the stage for IPO.
5	Balanced	Investment strategy of investing with no particular concentration on either of deals including seed stage, early stage, expansion stage and /or later stage.
6	Buyout	Investment strategy of making leveraged buyout.
7	Recap/ Turnaround	Investment strategy of providing financing at a time of operational or financial difficulty with the intention of improving the company's performance.
8	Not Specified	

# CHAPTER I-1. Venture Capital Investment

#### 1. Investment/loan Balance

#### (1) Status of investment/loan balance

Chart 1-1 illustrates the change in the venture capital investment/loan balance over the two most recent fiscal years. The breakdown of investments/loans for the most recent fiscal year is shown in Chart 1-2, and the breakdown of investments/loans in terms of the number of deals is given in Chart 1-3. The amount of investments (investments and/or loans) and the number of deals are calculated by simply adding up the figures given in survey answers.

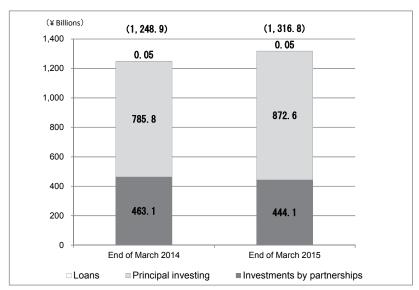


Chart 1-1: Change in VC investment/loan balance

Note 2: Numbers above are based solely on the latest survey, and do not include turnaround/buyout investment.

Chart 1-2: Investment/loan balance (as of the end of March 2015)

	Principal	y/y % change	Partnerships	y/y % change	Total	y/y % change
Investments	872,582	11.1%	444,143	-4.1%	1,316,725	5.4%
Loans	53	-1.9%	0	-	53	-1.9%
Total	872,635	11.1%	444,143	-4.1%	1,316,778	5.4%
N: Number of VC firms responded	N=56	N=52	N=82	N=80	N=86	N=83

 $<sup>\</sup>it Note~1:$  Numbers above are calculated by simply adding up the figures in answers.

Note 1: Numbers in parentheses indicate the total amount of investments/loans.

Note 2: Numbers above refer to VC firms that provided investment/loan amount.

Note 3: y/y % change is based on answers from VC firms that provided figures for both 2014 and 2015 (as of the end of March).

Note 4: Investment includes purchases of stocks and bonds (including bonds with share option) as well as investment in a fund managed by a third party.

Note 5: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Chart 1-3: Number of deals for investment/loan balance (as of the end of March 2015)

(Number of deals)

	Principal		Partnerships		Total	
	· r ··	y/y % change		y/y % change		y/y % change
Investments	1,183	-15.2%	3,289	-9.4%	4,472	-11.0%
Loans	1	0.0%	-	-	1	0.0%
Total	1,184	-15.4%	3,289	-9.4%	4,473	-11.1%
N: Number of VC firms responded	N=57	N=52	N=83	N=81	N=87	N=84

- Note 1: Numbers above are calculated by simply adding up the figures in answers.
- Note 2: Numbers above refer to VC firms that provided the number of deals.
- Note 3: y/y % change is based on answers from VC firms that provided figures for both 2014 and 2015 (as of the end of March).
- Note 4: Investment includes purchases of stocks and bonds (including bonds with share option) as well as investment in a fund managed by a third party.
- Note 5: The total may not correspond to the sum of breakdown owing to rounding and non-response.

#### (2) Investment/loan balance per deal

Chart 1-4 "Investment/loan balance per deal" refers to VC firms that provided both the amount of investment/loan balance and the number of deals. Per-deal figure is calculated by dividing the total amount of balance by the total number of deals.

Chart 1-4: Investment/loan balance per deal (as of the end of March 2015)

(Yen millions)

	End of M	arch 2014	End of March 2015 y/y % c		change	
	Principal	Partnerships	Principal	Partnerships	Principal	Partnerships
Number of deals	1,397	3,621	1,178	3,287		
Investment balance	784,981	462,373	871,817	443,469		
Investment balance per deal	561.9	127.7	740.1	134.9	31.3%	5.7%
Number of loans outstanding	1	-	1	ı		
Balance of loans outstanding	54	-	53	-		
Balance per loan	54	-	53	-	-1.9%	-
Total number of deals/loans	1,401	3,621	1,179	3,287		
Total balance	785,035	462,373	871,870	443,469		
Total balance per deal/loan	560.3	127.7	739.5	134.9	31.6%	5.7%
N: Number of VC firms responded	N=56	N=79	N=55	N=81	N=51	N=79

Note 1: Numbers above refer to VC firms that provided both the number of deals and the amount of investments/loans.

- Note 2: y/y % change is based on answers from VC firms that provided the number of deals and investment/loan amount for both 2014 and 2015 (as of the end of March).
- *Note 3*: Investment includes purchases of stocks and bonds (including bonds with share option) as well as investment in a fund managed by a third party.
- Note 4: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Chart 1-5: Investment/loan balance per deal (Principal and Partnerships, as of the end of March 2015)

	End of March 2014	End of March 2015	y/y % change
Number of deals	5,020	4,469	
Investment balance	1,248,163	1,316,052	
Investment balance per deal	248.6	294.5	18.5%
Number of loans outstanding	1	1	
Balance of loans outstanding	54	53	
Balance per loan	54	53	-1.9%
Total number of deals/loans	5,024	4,470	
Total balance	1,248,217	1,316,105	
Total balance per deal/loan	248.5	294.4	18.6%
N: Number of VC firms responded	N=84	N=85	N=82

Note 1: Numbers above refer to VC firms that provided the number of deals and the amount of investments/loans.

#### (3) Distribution of VC firms by investment/loan balance

The following chart shows the distribution of investment/loan balance for "Principal and Partnerships". Chart 1-6 shows the number of VC firms, the amount of investment/loan balance and the composition ratio for each range of balance. Chart 1-7 compares the share of the top ten VC firms and firms ranking 11<sup>th</sup> to the 20<sup>th</sup> to the rest of the VC firms in terms of the investment/loan balance.

Chart 1-6: Distribution of VC firms by investment/loan balance (as of the end of March 2015)

Balance range	Number of	Total balance		
(Yen billions)	VC firms	(Yen billions)	Percentage	
1 or less	39	16.3	1.2%	
over 1 - 5	26	60.6	4.6%	
over 5- 10	7	53.4	4.1%	
over 10 - 50	6	74.3	5.6%	
over 50 - 100	0	0.0	0.0%	
over 100	3	1,112.2	84.5%	
Total	81	1,316.8	100.0%	

N: Number of VC firms responded

N=81

Chart 1-7: Share of the top 10 and the rest of VC firms in terms of investment/loan balance

	Total balance		
	(Yen billions)	Percentage	
Top 10	1,196.2	90.8%	
Top 11th to 20th	60.9	4.6%	
Top 21th and below	59.7	4.5%	

N: Number of VC firms responded

N=81

Note 2: y/y % change is based on answers from VC firms that provided the number of deals and investment/loan amount for both 2014 and 2015 (as of the end of March).

Note 3: Investment includes purchases of stocks and bonds (including bonds with share option) as well as investment in a fund managed by a third party.

Note 4: The total may not correspond to the sum of breakdown owing to rounding and non-response.

## (4) Distribution of investment/loan balance by region

Charts 1-8 to 1-10 illustrate investment/loan balance for "Principal and Partnerships" by region according to the location of the deals.

Chart 1-8: Investment/loan balance by region (Principal and Partnerships, as of the end of March 2015)

	Number of deals	Percentage	Amount (Yen millions)	Percentage
Japan total	3,420	85.5%	292,266	58.5%
Hokkaido	54	1.5%	1,698	0.4%
Tohoku	80	2.2%	5,114	1.2%
Kanto (excl. Tokyo)	392	10.6%	20,068	4.9%
Tokyo	1,549	42.1%	123,239	30.1%
Chubu	178	4.8%	10,035	2.5%
Kinki	518	14.1%	28,544	7.0%
Chugoku	129	3.5%	4,383	1.1%
Shikoku	25	0.7%	1,922	0.5%
Kyushu and Okinawa	200	5.4%	10,676	2.6%
Overseas total	582	14.5%	207,722	41.5%
China	138	3.7%	52,511	12.8%
Southeast Asia	46	1.2%	15,056	3.7%
Other Asia-Pacific region	163	4.4%	50,043	12.2%
Europe	16	0.4%	1,041	0.3%
North America	180	4.9%	81,322	19.9%
Other Regions	13	0.4%	3,903	1.0%
Total	4,267	100.0%	509,220	100.0%

N: Number of VC firms responded

N=84

N=82

Note 1: Numbers above refer to VC firms that provided the number of deals and/or investment/loan amount.

Note 2: Percentages of the number of deals and the amount are calculated based on the total of each category.

Chart 1-9: Year-on-year % change by region for investment/loan balance (Principal and Partnerships, as of the end of March 2015)

	Number of		Amount	
	deals	y/y % change	(Yen millions)	y/y % change
Japan total	3,420	-13.9%	292,266	-11.4%
Hokkaido	54	-23.9%	1,698	-42.5%
Tohoku	80	0.0%	5,114	-32.7%
Kanto (excl. Tokyo)	392	-19.2%	20,068	-12.6%
Tokyo	1,549	-14.2%	123,239	-10.7%
Chubu	178	-21.1%	10,035	-18.9%
Kinki	518	-10.9%	28,544	-10.9%
Chugoku	129	-2.3%	4,383	22.1%
Shikoku	25	-35.1%	1,922	-17.0%
Kyushu and Okinawa	200	0.0%	10,676	20.5%
Overseas total	582	-1.7%	207,722	7.5%
China	138	4.9%	52,511	-2.9%
Southeast Asia	46	50.0%	15,056	17.8%
Other Asia-Pacific region	163	11.0%	50,043	23.8%
Europe	16	-11.8%	1,041	-66.0%
North America	180	-0.6%	81,322	14.8%
Other Regions	13	-13.3%	3,903	10.5%
Total	4,267	-11.5%	509,220	-5.2%

N = 74

N=71

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Chart 1-10: Investment/loan balance per deal by region (as of the end of March 2015)

	Principal	Principal		Partnerships		
	Tillelpai	y/y % change	1 artiferships	y/y % change	Total	y/y % change
Japan total	45.3	-3.9%	99.6	2.6%	85.5	2.8%
Hokkaido	25.9	-0.4%	35.5	-27.9%	32.0	-24.1%
Tohoku	13.6	-9.4%	74.8	-39.1%	64.7	-32.7%
Kanto (excl. Tokyo)	22.4	-21.3%	63.1	12.4%	51.6	8.4%
Tokyo	35.2	-31.7%	93.4	9.3%	79.6	4.1%
Chubu	37.5	14.4%	58.1	-4.9%	56.4	2.8%
Kinki	36.8	0.8%	64.7	0.5%	55.3	0.2%
Chugoku	14.1	-37.6%	44.4	42.8%	34.0	24.9%
Shikoku	40.3	-3.4%	94.1	44.3%	76.9	28.0%
Kyushu and Okinawa	15.9	-0.3%	66.3	18.1%	53.4	19.9%
Overs eas total	310.3	9.9%	365.0	8.9%	356.9	9.4%
China	318.2	-44.4%	398.6	10.1%	380.5	-7.5%
Southeast Asia	365.2	-6.6%	313.9	6.4%	327.3	-21.4%
Other Asia-Pacific region	192.4	2846.2%	312.9	8.1%	307.0	11.5%
Europe	8.6	-81.3%	73.2	-62.5%	65.1	-61.5%
North America	382.1	130.5%	464.6	5.3%	451.8	15.4%
Other Regions	-	-	300.2	19.2%	300.2	27.5%
Total	65.9	4.8%	136.5	6.3%	119.4	7.3%
N: Number of VC firms responded	N=51	N=46	N=79	N=69	N=82	N=71

Note 1: Numbers above refer to VC firms that provided both the number of deals and investment/loan amount.

Note 1: Numbers above refer to VC firms that provided the number of deals and/or investment/loan amount.

Note 2: y/y % change is based on answers from VC firms that provided the number of deals and/ or investment/loan amount for both 2014 and 2015 (as of the end of March).

Note 2: y/y % change is based on answers from VC firms that provided both the number of deals and investment/loan amount for both 2014 and 2015 (as of the end of March).

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

## 2. Investment Amount Made During the Year

### (1) Status of investment amount made during the year

Chart 2-1 shows the change in the investment amount made during the two most recent fiscal years. The breakdown of investment/loan amount made during the most recent fiscal year is shown in Chart 2-2, and the breakdown of deals is shown in Chart 2-3. The amount of investments and the numbers of deals in the charts are calculated by simply adding up the figures given in survey answers.

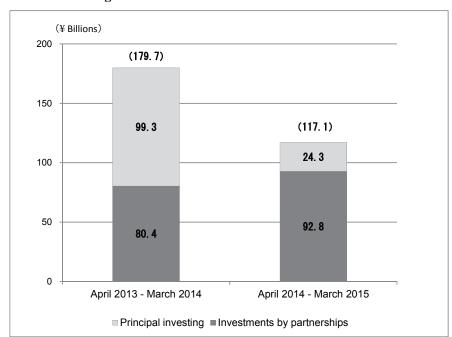


Chart 2-1: Change in VC investment amount made in FY2014 and FY2015

Note 2: Numbers above are based solely on the latest survey, and do not include turnaround/buyout investment.

Chart 2-2: Investment amount made during the year (April 2014 - March 2015)

						(Ten numbris)
	Principal	y/y % change	Partnerships	y/y % change	Total	y/y % change
		y/y /6 Change		y/y /0 change		y/y /6 change
Common stocks	1,400	-24.8%	33,717	48.5%	35,118	42.3%
Classified stocks	450	-22.9%	30,311	23.0%	30,761	25.8%
Bonds	595	-	2,061	-39.7%	2,656	-42.7%
Other	486	66.3%	3,381	324.3%	3,867	202.3%
Total	24,274	-74.9%	92,779	12.1%	117,053	-36.4%
N: Number of VC firms responded	N=46	N=41	N=78	N=66	N=85	N=72

Note 1: Numbers above are calculated by simply adding up the figures in answers.

 $<sup>\</sup>it Note~1:$  Numbers in parentheses indicate the total amount of investments during the year.

Note 2: Numbers above refer to VC firms that provided investment amount.

 $<sup>\</sup>textit{Note 3: y/y \% change refers to VC firms that provided the amounts for both periods, Apr. 2013-Mar. 2014 and Apr. 2014-Mar. 2015.}$ 

Note 4: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Chart 2-3: Number of deals during the year (April 2014 – March 2015)

(Number of deals)

	Principal		Partnerships		Total	
	Fillicipai	y/y % change	raitheiships	y/y % change	Total	y/y % change
Common stocks	31	21.7%	345	14.8%	376	14.8%
Classified stocks	10	0.0%	271	10.3%	281	12.0%
Bonds	1	-	41	-26.7%	42	-32.7%
Other	13	-27.8%	54	300.0%	67	75.7%
Total	81	-15.4%	888	20.6%	969	15.4%
N: Number of VC firms responded	N=47	N=42	N=79	N=66	N=87	N=73

Note 1: Numbers above are calculated by simply adding up the figures in answers.

#### (2) Investment/loan amount per deal during the year

Chart 2-4 and 2-5 "Investment amount per deal" refers to VC firms that provided both the investment amount and the number of deals. Per-deal figure is calculated by dividing the total amount of investments by the total number of deals.

Chart 2-4: Investment amount per deal during the year (April 2013– March 2015)

	April 2013 - March 2014		April 2014 -	March 2015	y/y % change	
	Principal	Partnerships	Principal	Partnerships	Principal	Partnerships
Number of deals	99	699	79	885		
Investment amount	99,343	80,431	24,274	92,779		
Per deal	1,003.5	115.1	307.3	104.8	-69.6%	-7.1%
N: Number of VC firms responded	N=50	N=68	N=46	N=78	N=41	N=66

Note 1: Numbers above refer to VC firms that provided both the number of deals and investment amount.

Note 2: Numbers above refer to VC firms that provided the number of deals.

*Note 3*: y/y % change refers to VC firms that provided the number of deals for both periods, Apr. 2013 – Mar. 2014 and Apr. 2014 – Mar. 2015.

Note 4: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Note 2: y/y % change is based on answers from VC firms that provided the number of deals and investment amount for both periods, Apr. 2013 – Mar. 2014 and Apr. 2014 – Mar. 2015.

*Note 3*: Investment includes purchases of stocks and bonds (including bonds with share option) as well as investment in a fund managed by a third party.

Note 4: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Chart 2-5: Investment amount per deal during the year (Principal and Partnerships, April 2013 – March 2015)

			,				
		Principal and Partnerships					
	April 2013 - March 2014	April 2014 - March 2015	y/y % change				
Number of deals	798	964					
Investment amount	179,774	117,053					
Per deal	225.3	121.4	-44.8%				
N: Number of VC firms responded	N=74	N=85	N=72				

Note 1: Numbers above refer to VC firms that provided both the number of deals and investment amount.

#### (3) Distribution of VC firms by investment amount during the year

Shown below is the distribution of VC firms classified by investment amount made by principal and partnerships. Chart 2-6 shows the number of VC firms, the total amount of investment made during the year and the composition ratio for each range of the investment amount. Chart 2-7 compares the share of the top ten VC firms and firms ranking 11th to 20th to that of the rest of the VC firms in terms of investment amount.

Chart 2-6: Distribution of VC firms by investment amount during the year (April 2014 - March 2015)

Investment amount	Number of	Total amount of investment		
(Yen billions)	VC firms	(Yen billions)	Percentage	
0	15	0.0	0.0%	
1 or less	49	11.1	9.5%	
over 1 - 5	17	42.3	36.1%	
over 5 - 10	1	5.1	4.3%	
over 10 - 20	2	37.1	31.7%	
over 20	1	21.5	18.4%	
Total	85	117.1	100.0%	

N: Number of VC firms responded

N=85

Chart 2-7: Share of the top 10 and the rest of VC firms in terms of investment amount made during the year

	Total amount of investment				
	(Yen billions)	Percentage			
Top 10	84.9	72.5%			
Top 11th to 20th	20.0	17.1%			
Top 21th and below	12.2	10.4%			

N: Number of VC firms responded

N=85

*Note 2*: y/y % change is based on answers from VC firms that provided the number of deals and investment amounts for both periods, Apr. 2013 – Mar. 2014 and Apr. 2014 – Mar. 2015.

Note 3: Investment includes purchases of stocks and bonds (including bonds with share option) as well as investment in a fund managed by a third party.

Note 4: The total may not correspond to the sum of breakdown owing to rounding and non-response.

#### (4) New investment and Follow-on investment

Charts 2-8 to 2-10 show the simple totaling of investment amount or the number of deals, year-on-year percentage change, and the investment amount per deal. These figures are based on the answers from VC firms that provided new and follow-on investment amount or the number of deals.

Chart 2-8: New and follow-on investment amount (April 2014 – March 2015)

(Yen millions)

	Principal		Partnerships		Total	
	Finicipai	y/y % change	raitheiships	y/y % change	Total	y/y % change
New investments	21,527	-15.5%	62,267	25.4%	83,794	5.9%
Follow-on investments	2,659	107.6%	23,049	71.7%	25,707	61.0%
Total	24,274	-74.9%	92,779	12.1%	117,053	-36.4%
N: Number of VC firms responded	N=46	N=41	N=78	N=66	N=85	N=72

Note 1: New and follow-on investment amount are calculated by simply adding up the figure in answers.

Chart 2-9: Number of deals for New and follow-on investments (April 2014 – March 2015)

(Number of deals)

	Principal	y/y % change	Partnerships	y/y % change	Total	y/y % change
New investments	56	0.0%	565	19.2%	621	15.3%
Follow-on investments	21	-20.8%	215	13.6%	236	9.2%
Total	81	-15.4%	888	20.6%	969	15.4%
N: Number of VC firms responded	N=47	N=42	N=79	N=66	N=87	N=73

Note 1: Numbers of deals are calculated by simply adding up the figures in answers.

# Chart 2-10: New and follow-on investment amount per deal (Principal and Partnerships, April 2013 – March 2015)

	April 2013 - March 2014		April 2014 -	March 2015	y/y % change	
	New	Follow-on	New	Follow-on	New	Follow-on
Number of deals	464	199	619	236		
Investment amount	63,019	13,354	83,794	25,707		
Per company	135.8	67.1	135.4	108.9	-7.8%	47.4%
N: Number of VC firms responded	N=68	N=62	N=79	N=68	N=66	N=57

Note 1: Numbers above refer to VC firms that provided both the number of deals and the investment amount.

Note 2: y/y % change is based on answers from VC firms that provided the amount for both periods, Apr. 2013 – Mar. 2014 and Apr. 2014 – Mar. 2015.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

*Note 2*: y/y % change is based on answers from VC firms that provided the amount for both periods, Apr. 2013 – Mar. 2014 and Apr. 2014 – Mar. 2015.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

*Note 2*: y/y % change is based on answers from VC firms that provided the number of deals and investment amount for both periods, Apr. 2013 – Mar. 2014 and Apr. 2014 – Mar. 2015.

*Note 3*: Investment includes purchases of stocks and bonds (including bonds with share option) as well as investment in a fund managed by a third party.

Note4: The total may not correspond to the sum of breakdown owing to rounding and non-response.

#### (5) Distribution of deals by region

Chart 2-11 illustrates the number of deals and investment amount ("by Principal and Partnerships") categorized by the region according to the location of the deals.

Chart 2-11: Number of deals and investment amount by region (Principal and Partnerships, April 2014 - March 2015)

	Number of deals	Percentage	Amount (Yen millions)	Percentage
Japan total	727	78.0%	74,025	63.9%
Hokkaido	3	0.4%	81	0.1%
Tohoku	15	2.0%	1,250	1.3%
Kanto (excl. Tokyo)	48	6.4%	4,326	4.4%
Tokyo	339	44.9%	38,253	38.8%
Chubu	19	2.5%	1,204	1.2%
Kinki	80	10.6%	8,692	8.8%
Chugoku	18	2.4%	1,411	1.4%
Shikoku	8	1.1%	851	0.9%
Kyushu and Okinawa	40	5.3%	2,524	2.6%
Overseas total	205	22.0%	41,848	36.1%
China	37	4.9%	7,265	7.4%
Southeast Asia	24	3.2%	3,435	3.5%
Other Asia-Pacific region	49	6.5%	10,008	10.1%
Europe	6	0.8%	588	0.6%
North America	62	8.2%	18,496	18.8%
Other Regions	7	0.9%	226	0.2%
Total	934	100.0%	115,593	100.0%

N: Number of VC firms responded

N=81

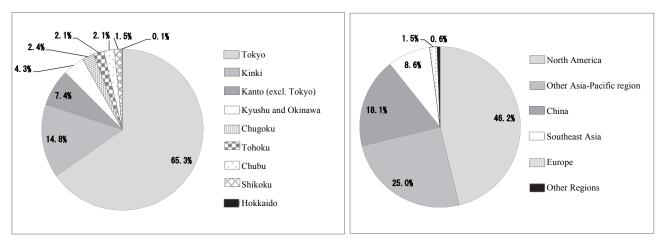
N=80

Note 1: Numbers above refer to VC firms that provided the number of deals and/or investment amount.

Note 2: Percentages of the number of deals and the amount are calculated based on the total of each category.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Chart 2-12: Distribution of deals by region for investment amount



Note: Numbers above refer to deals whose region is known in answers to the survey.

#### (6) Distribution of deals by stage

Charts 2-13 to 2-15 show the total figures and the composition ratio for the number of deals and investment amount, and investment amount per deal for "New", "Follow-on" and "New and Follow-on" investments. These figures are based on answers from VC firms that provided the number of deals and/or investment amount (by "Principal and Partnerships") by stage of deals.

Chart 2-13: Distribution of deals of new investments by stage (April 2014 - March 2015)

(Yen millions)

Stage	Number of deals Percentage		Amount	Amount per deal	
Seed	92	16.7%	10,499	15.3%	116.7
Early	252	45.7%	28,965	42.1%	116.3
Expansion	136	24.6%	17,375	25.2%	127.8
Later	72	13.0%	11,977	17.4%	166.3
Total	616	100.0%	84,421	100.0%	138.2

N: Number of VC firms responded

N=75

N = 73

N=73

- Note 1: Numbers above refer to VC firms that provided the number of deals and/or investment amount.
- Note 2: "Amount per deal" refers to VC firms that provided both the number of deals and investment amount by stage.
- Note 3: Percentages of the number of deals and the amount are calculated based on the total sum of each stage.
- Note 4: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Chart 2-14: Distribution of deals of follow-on investments by stage
(April 2014 - March 2015)

(Yen millions)

Stage	Number of deals		Amount	Amount per	
Stage	Percentage		Amount	Percentage	deal
Seed	19	9.6%	1,971	9.5%	103.8
Early	109	55.1%	9,769	47.2%	89.6
Expansion	53	26.8%	7,544	36.5%	142.3
Later	17	8.6%	1,411	6.8%	83.0
Total	210	100.0%	24,777	100.0%	118.0

N: Number of VC firms responded

N=64

N=64

N=64

- Note 1: Numbers above refer to VC firms that provided the number of deals and/or investment amount.
- Note 2: "Amount per deal" refers to VC firms that provided both the number of deals and investment amount by stage.
- Note 3: Percentages of numbers of deals and amounts are calculated based on the total sum of each stage.
- Note 4: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Chart 2-15: Distribution of deals of new and follow-on investments by stage
(April 2014 - March 2015)

Store	Number of deals		Amount	Amount per	
Stage	Percentage		Amount	Percentage	deal
Seed	111	14.8%	12,471	13.9%	114.4
Early	361	48.1%	38,734	43.3%	108.2
Expansion	189	25.2%	24,919	27.8%	131.8
Later	89	11.9%	13,388	15.0%	150.4
Total	826	100.0%	109,198	100.0%	133.0

N: Number of VC firms responded

N = 79

N=77

N=77

- Note 1: Numbers above refer to VC firms that provided the number of deals and/or investment amount.
- Note 2: "Amount per deal" refers to VC firms that provided both the number of deals and investment amount by stage.
- Note 3: Percentages of the number of deals and the amount are calculated based on the total sum of each stage.
- Note 4: The total may not correspond to the sum of breakdown owing to rounding and non-response.

#### (7) Distribution of deals by industry

Charts 2-16 to 2-18 show the total figures and the composition ratio of the number of deals and investment amount, and investment amount per deal for "New," "Follow-on" and "New and Follow-on" investment. These figures are based on answers from VC firms that provided the number of deals and/or investment amount (by "Principal and Partnerships") by industry.

Chart 2-16: Distribution of deals of new investment by industry (April 2014 - March 2015)

(Yen millions)

	Number of		A	Amount per	
	deals	Percentage	Amount	Percentage	deal
IT-related	341	55.4%	49,553	58.7%	145.3
Telecommunications/Networking and Equipment	23	3.7%	4,099	4.9%	178.2
Computers and Peripherals/IT services	273	44.3%	38,843	46.0%	143.9
Software	27	4.4%	5,526	6.5%	204.7
Semi-conductors/Electrical Machinery & Equipment	18	2.9%	1,085	1.3%	60.3
Biotechnology, Medical and Healthcare	83	13.5%	12,357	14.6%	148.9
Biotechnology/Medicine	58	9.4%	11,053	13.1%	193.9
Medical Device and Equipment/Healthcare-related	25	4.1%	1,304	1.5%	54.3
Industrial/Energy/Other	93	15.1%	11,043	13.1%	118.7
Products and Services	99	16.1%	11,468	13.6%	115.8
Media/Entertainment/Retailing/Consumer Goods	69	11.2%	5,887	7.0%	85.3
Finance/Real Estate/Business Services	30	4.9%	5,581	6.6%	186.0
IoT-related (Among the above)	1	0.2%	265	0.3%	265.0
Total	616	100.0%	84,421	100.0%	138.2
N: Number of VC firms responded	N=75		N=73		N=73

Note 1: Numbers above refer to VC firms that provided the number of deals and/or investment amount.

Note 2: "Amount per deal" refers to VC firms that provided both the number of deals and investment amount by industry.

Chart 2-17: Distribution of deals of follow-on investment by industry (April 2014 - March 2015)

	Number of		Amount		Amount per
	deals	Percentage	Amount	Percentage	deal
IT-related	116	55.0%	9,311	37.6%	80.3
Telecommunications/Networking and Equipment	9	4.3%	680	2.7%	75.6
Computers and Peripherals/IT services	77	36.5%	6,268	25.3%	81.4
Software	17	8.1%	1,362	5.5%	80.1
Semi-conductors/Electrical Machinery & Equipment	13	6.2%	1,001	4.0%	77.0
Biotechnology, Medical and Healthcare	46	21.8%	5,272	21.3%	114.6
Biotechnology/Medicine	33	15.6%	4,239	17.1%	128.4
Medical Device and Equipment/Healthcare-related	13	6.2%	1,034	4.2%	79.5
Industrial/Energy/Other	29	13.7%	5,711	23.0%	196.9
Products and Services	20	9.5%	4,483	18.1%	224.1
Media/Entertainment/Retailing/Consumer Goods	16	7.6%	3,071	12.4%	191.9
Finance/Real Estate/Business Services	4	1.9%	1,412	5.7%	353.0
IoT-related (Among the above)	0	0.0%	0	0.0%	-
Total	211	100.0%	24,777	100.0%	117.4

N: Number of VC firms responded

N=64

N=64

N=64

Chart 2-18: Distribution of deals of new and follow-on investments by industry (April 2014 - March 2015)

(Yen millions)

	Number of		A		Amount per
	deals	Percentage	Amount	Percentage	deal
IT-related	457	55.3%	58,863	53.9%	128.8
Telecommunications/Networking and Equipment	32	3.9%	4,779	4.4%	149.3
Computers and Peripherals/IT services	350	42.3%	45,111	41.3%	130.0
Software	44	5.3%	6,888	6.3%	156.6
Semi-conductors/Electrical Machinery & Equipment	31	3.7%	2,085	1.9%	67.3
Biotechnology, Medical and Healthcare	129	15.6%	17,630	16.1%	136.7
Biotechnology/M edicine	91	11.0%	15,291	14.0%	169.9
Medical Device and Equipment/Healthcare-related	38	4.6%	2,338	2.1%	63.2
Industrial/Energy/Other	122	14.8%	16,754	15.3%	137.3
Products and Services	119	14.4%	15,950	14.6%	134.0
Media/Entertainment/Retailing/Consumer Goods	85	10.3%	8,958	8.2%	105.4
Finance/Real Estate/Business Services	34	4.1%	6,993	6.4%	205.7
IoT-related (Among the above)	1	0.1%	265	0.2%	265.0
Total	827	100.0%	109,198	100.0%	133.0
N: Number of VC firms room anded	N-70	•	N-77	•	N-77

N: Number of VC firms responded

N=79

N=77

N=77

Note 1: Numbers above refer to VC firms that provided the number of deals and/or investment amount.

Note 2: "Amount per deal" refers to VC firms that provided both the number of deals and investment amount by industry.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Note 1: Numbers above refer to VC firms that provided the number of deals and/or investment amount.

Note 2: "Amount per deal" refers to VC firms that provided both the number of deals and investment amount by industry.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

#### 3. Overview of Investment Partnership

#### (1) Overall status of funds

Chart 3-1 shows the status of funds set up by VC firms. Chart 3-2 shows the distribution of VC firms concerning the most recent number of funds and the total amount of money invested in such funds. Chart 3-3 shows the number of funds set up or matured during the year as well as the number of limited partners and the total amount of capital commitments to those funds.

Chart 3-1: Status of funds

	End of March 2014	End of March 2015	y/y % change
Number of funds	389	364	-4.0%
Total number of limited partners	2,388	2,342	-1.1%
Capital commitments to funds (Yen billions)	1,754.2	1,642.6	-6.8%
Average number of limited partners	9.1	9.3	-0.4%
Average capital commitments (Yen billions)	4.6	4.6	-2.2%

N: Number of VC firms responded

(Average number of limited partners) N=71 N=68 N=67 (Average capital commitments) N=77 N=75 N=73

- Note 1: Average figures are calculated based on answers from VC firms that provided both the number of funds and the number of limited partners, or both the number of funds and the amount of capital commitments.
- Note 2: y/y % change is based on answers from VC firms that provided the number of deals and investment amount for both 2014 and 2015 (as the end of March).
- *Note 3*: Capital commitments are based on the amounts committed to funds (In the absence of capital commitments, based on the amount actually paid into funds).

Chart 3-2: Distribution of VC firms by the number of funds/amount of capital commitments (as of the end of March 2015)

Number of funds	Number of VC firms	Capital commitments to funds (Yen billions)	Number of VC firms
5 or less	60	10 or less	51
6 - 10	10	over 10 - 50	20
11 - 20	4	over 50 - 100	3
21 - 30	1	over 100 - 200	1
Over 30	1	over 200	2
Total	76	Total	77

Chart 3-3: The number of limited partners and amount of capital commitments per fund for funds established and matured during the year (April 2014 – March 2015)

	Established	Matured
Number of funds	39	51
Total number of limited partners	164	185
Capital commitments to funds (Yen billions)	91.1	220.5
Average number of limited partners	5.9	6.9
Average capital commitments (Yen billions)	2.5	4.4

N: Number of VC firms responded

 $\begin{array}{ccc} \text{(Average number of limited partners)} & \text{N=58} & \text{N=50} \\ \text{(Average capital commitments)} & \text{N=61} & \text{N=53} \end{array}$ 

- Note 1: "N" refers to VC firms that own at least one fund as of the end of March 2015, and that have answered concerning funds established or matured during the period.
- *Note 2*: Average figures are calculated based on answers from VC firms that provided both the number of funds and the number of limited partners, or both the number of funds and the amount of capital commitments.
- *Note 3*: Capital commitments are based on the amounts committed to funds (In the absence of capital commitments, based on the amount actually paid into funds).

#### (2) Breakdown of investor type

Chart 3-4 shows the breakdown of investors to the funds newly established between April 2014 and March 2015.

Chart 3-4: Breakdown of investors (April 2014 – March 2015)

(Yen millions)

					(Tell Hillions)	
Type of investors	Number of		Amount		Per investor	
Type of investors	investers	Percentage	Amount	Percentage	1 CI IIIVESTOI	
I. GP/Managing partners	45	18.6%	4,478	6.8%	101.8	
II. Domestic total	193	79.8%	57,357	86.7%	297.2	
Family/Individual relatives	44	18.2%	787	1.2%	18.3	
Other VC/Fund of funds	14	5.8%	6,590	10.0%	549.2	
Corporations	73	30.2%	18,569	28.1%	269.1	
Bank/Trust and credit unions	45	18.6%	13,270	20.1%	294.9	
Insurance companies	3	1.2%	9,660	14.6%	3,220.0	
Brokerage firms	2	0.8%	101	0.2%	50.5	
Pension funds	0	0.0%	0	0.0%	NA	
Government/Local public bodies (non-pension)	6	2.5%	5,680	8.6%	946.7	
Academic societies/Universities	0	0.0%	0	0.0%	NA	
Other domestic	6	2.5%	2,700	4.1%	450.0	
III. Overseas total	4	1.7%	4,300	6.5%	1,075.0	
Total ( I+II+III )	242	100.0%	66,135	100.0%	273.3	

N: Number of VC firms responded

N=26

N=26

N=26

- Note 1: Numbers above refer to VC firms that provided the number of investors or investment amount (excluding VC firms that replied there was no investment from any type of investor).
- Note 2: Per-investor figures refer to VC firms that provided both the number of investors and the amount.
- Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.
- Note 4: Capital commitments are based on the amounts committed to funds (In the absence of committed amounts, based on the amount actually paid into funds).

1.2% Corporations 0.2% 4.1% Bank/Trust and credit unions Insurance companies 6.5% Other VC/Fund of funds 6.8% 28. 1% Government/Local public bodies (non-pension) 8.6% GP/Managing partners Overseas total 10.0% Other domestic 20.1% Family/Individual relatives 14.6% Brokerage firms

Chart 3-5: Breakdown of investors in terms of the amount invested

## 4. Exit (Cashing out an investment) Status

Chart 4-1 shows the number of deals by exit route in the last five years. Chart 4-2 shows the percentage breakdown of exit route. The figures used in Charts 4-1 and 4-2 are based on simply adding up the figures in survey answers. "Stock sales" includes cases that a deal is "sold to a secondary fund" and "sold to a third party".

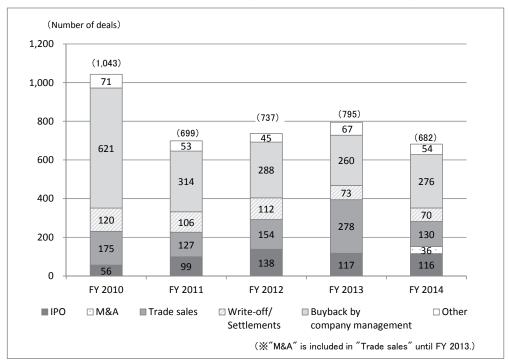
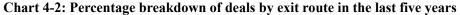
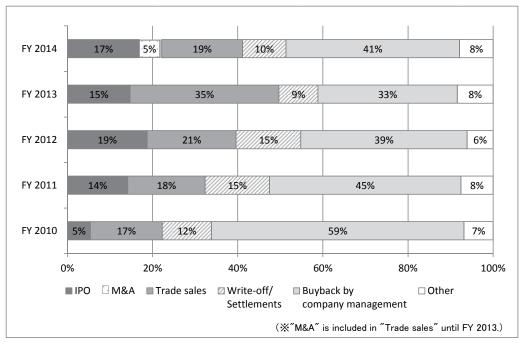


Chart 4-1: Number of deals by exit route in the last five years





## 5. International comparison of VC investments

Chart 5-1 to 5-3 show the comparison of VC investments between US, Europe, China and Japan.

Chart 5-1: Breakdown of VC investments included in Data

	Г	Domestic investment			
Region	Domestic VC firms located in the country	Foreign-owned VC firms located in the country	VC firms located outside the country	VC firms located in the country	Resource
US	0	0	0	×	NVCA YEARBOOK 2015 (NVCA)
Europe	0	0	0	0	2014 European Private Equity Activity (EVCA)
China	0	0	0	×	China VC/PE Market Review (Zero2IPO)
Japan	0	0*	×	0	VEC YEARBOOK 2015 (VEC)

Note 1: Data for Japan are based on a fiscal year, others are based on a calender year.

Note 2: All data do not include turnaround/buyout investments.

Chart 5-2: International Comparison of VC investment amount

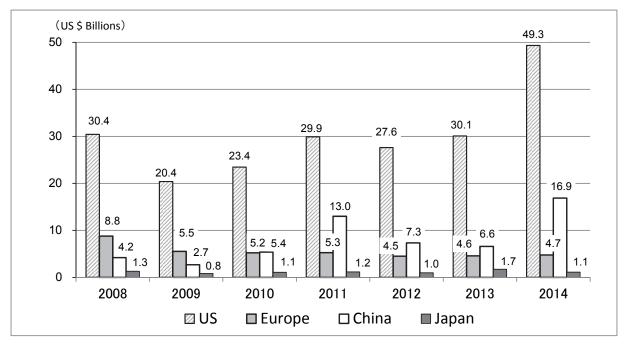
	2008	2009	2010	2011	2012	2013	2014
US (\$Bil)	30.4	20.4	23.4	29.9	27.6	30.1	49.3
Europe (€ Bil)	6.6	4.2	3.9	4.0	3.4	3.4	3.6
China (\$Bil)	4.2	2.7	5.4	13.0	7.3	6.6	16.9
Japan (¥Bil)	136.6	87.5	113.2	124.0	102.6	181.8	117.1

Chart 5-3: International Comparison of VC investment amount (converted to USD)

(\$ billions)

	2008	2009	2010	2011	2012	2013	2014
US	30.4	20.4	23.4	29.9	27.6	30.1	49.3
Europe	8.8	5.5	5.2	5.3	4.5	4.6	4.7
China	4.2	2.7	5.4	13.0	7.3	6.6	16.9
Japan	1.3	0.8	1.1	1.2	1.0	1.7	1.1

Note: converted at the rate of 1Euro=1.3293 USD, 1yen=0.0095 USD (annual average rates of exchange 2014)



# 6. Results of the Survey

Chart 6-1: Investment/loan balance of VC firms

	As of the end	of March 2014	As of the end of March 2015		
	Number of deals	Amount (Yen millions)	Number of deals	Amount (Yen millions)	
Investments	1,400	785,790	1,183	872,582	
Loans	1	54	1	53	
Total	1,401	785,844	1,184	872,635	

N: Number of VC firms responded

N=57 N=56

# **Chart 6-2: Investment balance of partnerships**

	As of the end	of March 2014	As of the end of March 2015		
	Number of deals	Number of deals Amount (Yen millions)		Amount (Yen millions)	
Investments	3,626	463,055	3,289	444,143	
N: Number of VC firms respond	led	N=83	N=82		

# Chart 6-3: Investment/loan balance of VC firms and partnerships

	As of the end	of March 2014	As of the end of March 2015		
	Number of deals Amount (Yen millions)		Number of deals	Amount (Yen millions)	
Investments	5,026	1,248,845	4,472	1,316,725	
Loans	1	54	1	53	
Total	5,027	1,248,899	4,473	1,316,778	

N: Number of VC firms responded

N=87

Chart 6-4: Investment/loan balance by region: VC firms

	As of the end	of March 2014	As of the end	of March 2015
	Number of deals	Amount (Yen millions)	Number of deals	Amount (Yen millions)
Japan total	1,106	53,266	899	41,398
Hokkaido	21	547	19	493
Tohoku	19	271	13	177
Kanto (excl. Tokyo)	145	4,137	111	2,466
Tokyo	474	24,318	367	12,934
Chubu	78	3,363	52	2,714
Kinki	187	6,813	174	6,364
Chugoku	51	1,155	43	608
Shikoku	9	375	8	322
Kyushu and Okinawa	55	878	50	793
Overseas total	92	25,987	86	26,685
China	6	14,679	31	9,866
Southeast Asia	3	3,078	12	4,383
Other Asia-Pacific region	5	52	8	1,539
Europe	2	92	2	17
North America	30	5,149	28	10,698
Other Regions	2	8	0	0
Total	1,260	80,529	1,043	69,328
N: Number of VC firms responded			52	52

Chart 6-5: Investment/loan balance by region: partnerships

	As of the end	of March 2014	As of the end	of March 2015
	Number of deals	Amount (Yen millions)	Number of deals	Amount (Yen millions)
Japan total	2,812	274,297	2,521	250,868
Hokkaido	50	2,408	35	1,205
Tohoku	61	7,331	67	4,937
Kanto (excl. Tokyo)	340	18,802	281	17,601
Tokyo	1,331	113,610	1,182	110,305
Chubu	146	8,710	126	7,322
Kinki	392	25,127	344	22,179
Chugoku	80	2,396	86	3,775
Shikoku	28	1,910	17	1,600
Kyushu and Okinawa	144	7,978	150	9,883
Overseas total	499	167,037	496	181,038
China	75	34,615	107	42,646
Southeast Asia	15	7,935	34	10,673
Other Asia-Pacific region	131	40,003	155	48,504
Europe	16	3,058	14	1,024
North America	149	65,339	152	70,624
Other Regions	14	3,525	13	3,903
Total	3,509	453,998	3,224	439,892

N: Number of VC firms responded

Chart 6-6: Investment/loan balance by region: VC firms and partnerships

	As of the end	of March 2014	As of the end	of March 2015
	Number of deals	Amount (Yen millions)	Number of deals	Amount (Yen millions)
Japan total	3,918	327,564	3,420	292,266
Hokkaido	71	2,955	54	1,698
Tohoku	80	7,603	80	5,114
Kanto (excl. Tokyo)	485	22,940	392	20,068
Tokyo	1,805	137,928	1,549	123,239
Chubu	224	12,073	178	10,035
Kinki	579	31,940	518	28,544
Chugoku	131	3,551	129	4,383
Shikoku	37	2,285	25	1,922
Kyushu and Okinawa	199	8,856	200	10,676
Overseas total	591	193,023	582	207,722
China	81	49,294	138	52,511
Southeast Asia	18	11,013	46	15,056
Other Asia-Pacific region	136	40,055	163	50,043
Europe	18	3,150	16	1,041
North America	179	70,488	180	81,322
Other Regions	16	3,533	13	3,903
Total	4,769	534,527	4,267	509,220

N: Number of VC firms responded

Chart 6-7: Breakdown of investments made during the year: VC firms

April 2013- March 2014							
	New inv	estments	Follow-on i	nvestments	To	Total	
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	
I Common stocks	22	523	4	1,397	26	1,920	
■ Classified stocks	9	220	0	0	9	220	
<b>Ⅲ</b> Bonds	1	2,730	2	26	3	2,756	
IV Other	6	190	18	292	24	482	
Total	58	23,948	25	2,365	99	99,343	

50 50

April 2014- March 2015							
	New inv	estments	Follow-on i	nvestments	To	otal	
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	
I Common stocks	23	1,082	8	318	31	1,400	
■ Classified stocks	10	450	0	0	10	450	
Ⅲ Bonds	1	595	0	0	1	595	
IV Other	2	3	11	483	13	486	
Total	56	21,527	21	2,659	81	24,274	

N: Number of VC firms responded

Chart 6-8: Breakdown of investments/loans made during the year: Partnerships

		April 2013- March 2014						
	New inv	estments	Follow-on i	nvestments	To	otal		
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)		
I Common stocks	214	17,723	76	4,593	278	22,119		
	168	19,027	72	4,894	236	23,776		
Ⅲ Bonds	31	2,043	20	1,050	50	3,073		
IV Other	9	599	7	482	15	1,061		
Total	406	39,071	174	10,989	699	80,431		
N: Number of VC firms responded					68	68		

	April 2014- March 2015							
	New inv	estments	Follow-on i	nvestments	Total			
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)		
I Common stocks	265	26,949	80	6,769	345	33,717		
	177	20,198	94	10,113	271	30,311		
<b>Ⅲ</b> Bonds	21	1,066	20	995	41	2,061		
IV Other	42	2,236	12	1,146	54	3,381		
Total	565	62,267	215	23,049	888	92,779		
27.27 1 2772.0								

N: Number of VC firms responded

Chart 6-9: Breakdown of investments/loans made during the year: VC firms and partnerships

April 2013- March 2014							
	New inv	estments	Follow-on i	nvestments	To	Total	
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	
I Common stocks	236	18,247	80	5,990	304	24,039	
■ Classified stocks	177	19,247	72	4,894	245	23,996	
<b>Ⅲ</b> Bonds	32	4,773	22	1,076	53	5,829	
<b>Ⅳ</b> Other	15	789	25	774	39	1,543	
Total	464	63,019	199	13,354	798	179,774	

74 74

April 2014- March 2015							
	New inv	estments	Follow-on i	nvestments	To	Total	
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	
I Common stocks	288	28,031	88	7,087	376	35,118	
	187	20,648	94	10,113	281	30,761	
Ⅲ Bonds	22	1,661	20	995	42	2,656	
IV Other	44	2,238	23	1,629	67	3,867	
Total	621	83,794	236	25,707	969	117,053	

N: Number of VC firms responded

8

Chart 6-10: New and follow-on investments by region: VC firms

	New inv	estment	Follow-on	investment	To	otal
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)
Japan total	41	14,419	8	359	56	17,881
Hokkaido	0	0	0	0	0	0
Tohoku	2	530	0	0	2	530
Kanto (excl. Tokyo)	6	774	0	0	6	774
Tokyo	16	8,047	3	266	19	8,313
Chubu	0	0	2	63	2	63
Kinki	12	4,975	2	24	14	4,999
Chugoku	3	49	0	0	3	49
Shikoku	1	38	0	0	1	38
Kyushu and Okinawa	1	6	1	6	2	12
Overseas total	2	2,500	2	1,858	12	5,521
China	0	0	1	1,500	1	1,500
Southeast Asia	0	0	0	0	2	792
Other Asia-Pacific region	0	0	0	0	0	0
Europe	0	0	0	0	0	0
North America	2	2,500	1	358	3	2,858
Other Regions	0	0	0	0	0	0
Total	43	16,919	10	2,217	70	23,405
N: Number of VC firms responded		35		30		41

Chart 6-11: New and follow-on investments by region: Partnerships

	New inv	estment	Follow-on	investment	To	otal
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)
Japan total	397	31,369	144	15,335	671	56,144
Hokkaido	2	61	1	20	3	81
Tohoku	12	621	1	99	13	720
Kanto (excl. Tokyo)	28	1,599	14	1,953	42	3,552
Tokyo	236	21,646	84	8,294	320	29,940
Chubu	15	991	2	150	17	1,141
Kinki	52	2,245	14	1,448	66	3,693
Chugoku	13	1,250	2	113	15	1,362
Shikoku	3	113	4	700	7	813
Kyushu and Okinawa	27	1,751	11	761	38	2,512
Overseas total	91	18,900	51	4,447	193	36,328
China	31	4,025	2	579	36	5,765
Southeast Asia	15	1,613	5	167	22	2,643
Other Asia-Pacific region	12	1,632	4	276	49	10,008
Europe	4	551	2	37	6	588
North America	24	10,471	29	2,725	59	15,638
Other Regions	2	40	4	62	7	226
Total	488	50,270	195	19,782	864	92,188
N: Number of VC firms responded		67		57		75

Chart 6-12: New and follow-on investments by region: VC firms and partnerships

						-	
	New inv	restment	Follow-on	investment	To	Total	
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	
Japan total	438	45,788	152	15,694	727	74,025	
Hokkaido	2	61	1	20	3	81	
Tohoku	14	1,151	1	99	15	1,250	
Kanto (excl. Tokyo)	34	2,373	14	1,953	48	4,326	
Tokyo	252	29,693	87	8,560	339	38,253	
Chubu	15	991	4	213	19	1,204	
Kinki	64	7,220	16	1,472	80	8,692	
Chugoku	16	1,299	2	113	18	1,411	
Shikoku	4	151	4	700	8	851	
Kyushu and Okinawa	28	1,757	12	767	40	2,524	
Overseas total	93	21,400	53	6,305	205	41,848	
China	31	4,025	3	2,079	37	7,265	
Southeast Asia	15	1,613	5	167	24	3,435	
Other Asia-Pacific region	12	1,632	4	276	49	10,008	
Europe	4	551	2	37	6	588	
North America	26	12,971	30	3,083	62	18,496	
Other Regions	2	40	4	62	7	226	
Total	531	67,189	205	21,998	934	115,593	
N: Number of VC firms responded		72		59		80	

Chart 6-13: Distribution of deals of new investments by VC firms by industry and stage (Number of deals)

Industry		Apri	2014 - March	2015	
industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	1	0	0	0	1
Computers and Peripherals/IT services	1	4	5	5	16
Software	0	0	1	0	1
Semi-conductors/Electrical Machinery & Equipment	0	0	0	0	0
Biotechnology/Medicine	2	2	1	0	5
Medical Device and Equipment/Healthcare-related	0	2	0	0	2
Industrial/Energy/Other	1	10	6	0	17
Media/Entertainment/Retailing/Consumer Goods	0	0	1	4	5
Finance/Real Estate/Business Services	0	0	1	2	6
IoT-related (Among the above)	0	0	0	0	0
Total	5	18	15	11	53

38

Chart 6-14: Distribution of deals of follow-on investments by VC firms by industry and stage (Number of deals)

In directors	April 2014 - March 2015				
Industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	0	0	0	0	0
Computers and Peripherals/IT services	0	1	2	1	4
Software	0	0	0	0	0
Semi-conductors/Electrical Machinery & Equipment	0	0	0	0	0
Biotechnology/M edicine	0	1	0	0	1
Medical Device and Equipment/Healthcare-related	0	0	1	0	1
Industrial/Energy/Other	0	0	1	2	3
Media/Entertainment/Retailing/Consumer Goods	0	0	0	2	2
Finance/Real Estate/Business Services	0	0	0	0	0
IoT-related (Among the above)	0	0	0	0	0
Total	0	2	4	5	11

N: Number of VC firms responded

32

Chart 6-15: Distribution of deals of new and follow-on investments by VC firms by industry and stage (Number of deals)

In directors	April 2014 - March 2015				
Industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	1	0	0	0	1
Computers and Peripherals/IT services	1	5	7	6	20
Software	0	0	1	0	1
Semi-conductors/Electrical Machinery & Equipment	0	0	0	0	0
Biotechnology/M edicine	2	3	1	0	6
Medical Device and Equipment/Healthcare-related	0	2	1	0	3
Industrial/Energy/Other	1	10	7	2	20
Media/Entertainment/Retailing/Consumer Goods	0	0	1	6	7
Finance/Real Estate/Business Services	0	0	1	2	6
IoT-related (Among the above)	0	0	0	0	0
Total	5	20	19	16	64

N: Number of VC firms responded

40

Chart 6-16: Distribution of new investment amount by VC firms by industry and stage

To decode.	April 2014 - March 2015				
Industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	1,000	0	0	0	1,000
Computers and Peripherals/IT services	520	3,850	1,545	1,087	7,202
Software	0	0	1,560	0	1,560
Semi-conductors/Electrical Machinery & Equipment	0	0	0	0	0
Biotechnology/M edicine	3,580	1	6	0	3,587
Medical Device and Equipment/Healthcare-related	0	51	0	0	51
Industrial/Energy/Other	20	3,671	135	0	3,826
Media/Entertainment/Retailing/Consumer Goods	0	0	26	632	658
Finance/Real Estate/Business Services	0	0	10	16	3,613
IoT-related (Among the above)	0	0	0	0	0
Total	5,120	7,573	3,282	1,735	21,497

N: Number of VC firms responded

37

Chart 6-17: Distribution of follow-on investment amount by VC firms by industry and stage

(Yen millions)

Industry		April	2014 - March	2015	
Industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	0	0	0	0	0
Computers and Peripherals/IT services	0	19	361	2	382
Software	0	0	0	0	0
Semi-conductors/Electrical Machinery & Equipment	0	0	0	0	0
Biotechnology/M edicine	0	50	0	0	50
Medical Device and Equipment/Healthcare-related	0	0	5	0	5
Industrial/Energy/Other	0	0	1,500	25	1,525
Media/Entertainment/Retailing/Consumer Goods	0	0	0	241	241
Finance/Real Estate/Business Services	0	0	0	0	0
IoT-related (Among the above)	0	0	0	0	0
Total	0	69	1,866	268	2,203

N: Number of VC firms responded

32

Chart 6-18: Distribution of new and follow-on investment amount by VC firms by industry and stage

(Yen millions)

		Apri	l 2014 - March	2015	
Industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	1,000	0	0	0	1,000
Computers and Peripherals/IT services	520	3,869	1,906	1,089	7,584
Software	0	0	1,560	0	1,560
Semi-conductors/Electrical Machinery & Equipment	0	0	0	0	0
Biotechnology/Medicine	3,580	51	6	0	3,637
Medical Device and Equipment/Healthcare-related	0	51	5	0	56
Industrial/Energy/Other	20	3,671	1,635	25	5,351
Media/Entertainment/Retailing/Consumer Goods	0	0	26	873	899
Finance/Real Estate/Business Services	0	0	10	16	3,613
IoT-related (Among the above)	0	0	0	0	0
Total	5,120	7,642	5,148	2,003	23,700

N: Number of VC firms responded

39

Chart 6-19: Distribution of deals of new investments by Partnerships by industry and stage (Number of deals)

Industry		April	2014 - March	2015	
industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	3	15	4	0	22
Computers and Peripherals/IT services	46	127	43	18	257
Software	2	14	7	3	26
Semi-conductors/Electrical Machinery & Equipment	5	8	3	2	18
Biotechnology/Medicine	12	16	7	4	53
Medical Device and Equipment/Healthcare-related	6	9	7	1	23
Industrial/Energy/Other	4	17	19	18	76
Media/Entertainment/Retailing/Consumer Goods	8	19	23	10	64
Finance/Real Estate/Business Services	1	9	8	5	24
IoT-related (Among the above)	0	0	1	0	1
Total	87	234	121	61	563

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Chart 6-20: Distribution of deals of follow-on investments by Partnerships by industry and stage (Number of deals)

In directors		April	2014 - March	2015	
Industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	0	6	3	0	9
Computers and Peripherals/IT services	6	48	15	0	73
Software	1	9	4	3	17
Semi-conductors/Electrical Machinery & Equipment	2	6	3	2	13
Biotechnology/Medicine	3	18	6	2	32
Medical Device and Equipment/Healthcare-related	3	5	4	0	12
Industrial/Energy/Other	2	12	5	4	26
Media/Entertainment/Retailing/Consumer Goods	2	3	7	1	14
Finance/Real Estate/Business Services	0	0	2	0	4
IoT-related (Among the above)	0	0	0	0	0
Total	19	107	49	12	199

N: Number of VC firms responded

59

Chart 6-21: Distribution of deals of new and follow-on investments by Partnerships by industry and stage (Number of deals)

To decoder.	April 2014 - March 2015				
Industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	3	21	7	0	31
Computers and Peripherals/IT services	52	175	58	18	330
Software	3	23	11	6	43
Semi-conductors/Electrical Machinery & Equipment	7	14	6	4	31
Biotechnology/Medicine	15	34	13	6	85
Medical Device and Equipment/Healthcare-related	9	14	11	1	35
Industrial/Energy/Other	6	29	24	22	102
Media/Entertainment/Retailing/Consumer Goods	10	22	30	11	78
Finance/Real Estate/Business Services	1	9	10	5	28
IoT-related (Among the above)	0	0	1	0	1
Total	106	341	170	73	762

N: Number of VC firms responded

7

Chart 6-22: Distribution of new investment amount by partnerships by industry and stage

Industry		April	2014 - March	2015	
Industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	205	1,795	1,099	0	3,099
Computers and Peripherals/IT services	2,909	11,936	7,073	5,138	31,641
Software	110	2,001	1,741	115	3,966
Semi-conductors/Electrical Machinery & Equipment	191	444	242	209	1,085
Biotechnology/M edicine	934	2,218	420	414	7,466
Medical Device and Equipment/Healthcare-related	203	691	257	102	1,253
Industrial/Energy/Other	240	897	772	2,557	7,217
Media/Entertainment/Retailing/Consumer Goods	578	896	2,125	665	5,229
Finance/Real Estate/Business Services	10	515	364	1,042	1,968
IoT-related (Among the above)	0	0	265	0	265
Total	5,379	21,392	14,093	10,242	62,924

N: Number of VC firms responded

67

Chart 6-23: Distribution of follow-on investment amount by partnerships by industry and stage

(Yen millions)

La decadare.	April 2014 - March 2015					
Industry	Seed	Early	Expansion	Later	Total	
Telecommunications/Networking and Equipment	0	349	331	0	680	
Computers and Peripherals/IT services	635	3,082	1,422	0	5,886	
Software	20	1,051	237	54	1,362	
Semi-conductors/Electrical Machinery & Equipment	200	532	21	247	1,001	
Biotechnology/M edicine	667	2,392	485	253	4,189	
Medical Device and Equipment/Healthcare-related	209	666	154	0	1,029	
Industrial/Energy/Other	120	708	1,159	90	4,186	
Media/Entertainment/Retailing/Consumer Goods	120	920	1,291	499	2,830	
Finance/Real Estate/Business Services	0	0	579	0	1,412	
IoT-related (Among the above)	0	0	0	0	0	
Total	1,971	9,700	5,679	1,143	22,574	

N: Number of VC firms responded

59

Chart 6-24: Distribution of new and follow-on investment amount by partnerships by industry and stage

(Yen millions)

In decades.		April	2014 - March	2015	
Industry	Seed	Early	Expansion	Later	Total
Telecommunications/Networking and Equipment	205	2,144	1,430	0	3,779
Computers and Peripherals/IT services	3,544	15,019	8,494	5,138	37,527
Software	130	3,052	1,978	169	5,328
Semi-conductors/Electrical Machinery & Equipment	390	976	263	456	2,085
Biotechnology/Medicine	1,601	4,610	905	667	11,654
Medical Device and Equipment/Healthcare-related	412	1,357	411	102	2,282
Industrial/Energy/Other	360	1,605	1,931	2,647	11,403
Media/Entertainment/Retailing/Consumer Goods	698	1,816	3,416	1,164	8,059
Finance/Real Estate/Business Services	10	515	943	1,042	3,380
IoT-related (Among the above)	0	0	265	0	265
Total	7,351	31,092	19,771	11,385	85,498

N: Number of VC firms responded

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Chart 6-25: Distribution of deals of new investments by VC firms and partnerships by industry and stage (Number of deals)

La direction		April 2014 - March 2015						
Industry	Seed	Early	Expansion	Later	Total			
Telecommunications/Networking and Equipment	4	15	4	0	23			
Computers and Peripherals/IT services	47	131	48	23	273			
Software	2	14	8	3	27			
Semi-conductors/Electrical Machinery & Equipment	5	8	3	2	18			
Biotechnology/Medicine	14	18	8	4	58			
Medical Device and Equipment/Healthcare-related	6	11	7	1	25			
Industrial/Energy/Other	5	27	25	18	93			
Media/Entertainment/Retailing/Consumer Goods	8	19	24	14	69			
Finance/Real Estate/Business Services	1	9	9	7	30			
IoT-related (Among the above)	0	0	1	0	1			
Total	92	252	136	72	616			

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Chart 6-26: Distribution of deals of follow-on investment by VC firms and partnerships by industry and stage (Number of deals)

Industry		April 2014 - March 2015						
Industry	Seed	Early	Expansion	Later	Total			
Telecommunications/Networking and Equipment	0	6	3	0	9			
Computers and Peripherals/IT services	6	49	17	1	77			
Software	1	9	4	3	17			
Semi-conductors/Electrical Machinery & Equipment	2	6	3	2	13			
Biotechnology/M edicine	3	19	6	2	33			
Medical Device and Equipment/Healthcare-related	3	5	5	0	13			
Industrial/Energy/Other	2	12	6	6	29			
Media/Entertainment/Retailing/Consumer Goods	2	3	7	3	16			
Finance/Real Estate/Business Services	0	0	2	0	4			
IoT-related (Among the above)	0	0	0	0	0			
Total	19	109	53	17	210			

N: Number of VC firms responded

64

Chart 6-27: Distribution of deals of new and follow-on investments by VC firms and partnerships by industry and stage (Number of deals)

In decoder.		April 2014 - March 2015						
Industry	Seed	Early	Expansion	Later	Total			
Telecommunications/Networking and Equipment	4	21	7	0	32			
Computers and Peripherals/IT services	53	180	65	24	350			
Software	3	23	12	6	44			
Semi-conductors/Electrical Machinery & Equipment	7	14	6	4	31			
Biotechnology/M edicine	17	37	14	6	91			
Medical Device and Equipment/Healthcare-related	9	16	12	1	38			
Industrial/Energy/Other	7	39	31	24	122			
Media/Entertainment/Retailing/Consumer Goods	10	22	31	17	85			
Finance/Real Estate/Business Services	1	9	11	7	34			
IoT-related (Among the above)	0	0	1	0	1			
Total	111	361	189	89	826			

N: Number of VC firms responded

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Chart 6-28: Distribution of new investment amount by VC firms and partnerships by industry and stage

Industry	April 2014 - March 2015						
Industry	Seed	Early	Expansion	Later	Total		
Telecommunications/Networking and Equipment	1,205	1,795	1,099	0	4,099		
Computers and Peripherals/IT services	3,429	15,786	8,618	6,225	38,843		
Software	110	2,001	3,301	115	5,526		
Semi-conductors/Electrical Machinery & Equipment	191	444	242	209	1,085		
Biotechnology/M edicine	4,514	2,219	427	414	11,053		
Medical Device and Equipment/Healthcare-related	203	742	257	102	1,304		
Industrial/Energy/Other	260	4,568	907	2,557	11,043		
Media/Entertainment/Retailing/Consumer Goods	578	896	2,151	1,297	5,887		
Finance/Real Estate/Business Services	10	515	374	1,058	5,581		
IoT-related (Among the above)	0	0	265	0	265		
Total	10,499	28,965	17,375	11,977	84,421		

N: Number of VC firms responded

73

Chart 6-29: Distribution of follow-on investment amount by VC firms and partnerships by industry and by stage

(Yen millions)

To decade.		April 2014 - March 2015						
Industry	Seed	Early	Expansion	Later	Total			
Telecommunications/Networking and Equipment	0	349	331	0	680			
Computers and Peripherals/IT services	635	3,101	1,782	2	6,268			
Software	20	1,051	237	54	1,362			
Semi-conductors/Electrical Machinery & Equipment	200	532	21	247	1,001			
Biotechnology/Medicine	667	2,442	485	253	4,239			
Medical Device and Equipment/Healthcare-related	209	666	159	0	1,034			
Industrial/Energy/Other	120	708	2,659	115	5,711			
Media/Entertainment/Retailing/Consumer Goods	120	920	1,291	740	3,071			
Finance/Real Estate/Business Services	0	0	579	0	1,412			
IoT-related (Among the above)	0	0	0	0	0			
Total	1,971	9,769	7,544	1,411	24,777			

N: Number of VC firms responded

64

Chart 6-30: Distribution of new and follow-on investment amount by VC firms and partnerships by industry and by stage

(Yen millions)

Industry	April 2014 - March 2015						
ilidustry	Seed	Early	Expansion	Later	Total		
Telecommunications/Networking and Equipment	1,205	2,144	1,430	0	4,779		
Computers and Peripherals/IT services	4,064	18,888	10,400	6,227	45,111		
Software	130	3,052	3,538	169	6,888		
Semi-conductors/Electrical Machinery & Equipment	390	976	263	456	2,085		
Biotechnology/M edicine	5,181	4,661	912	667	15,291		
Medical Device and Equipment/Healthcare-related	412	1,408	416	102	2,338		
Industrial/Energy/Other	380	5,276	3,566	2,672	16,754		
Media/Entertainment/Retailing/Consumer Goods	698	1,816	3,442	2,037	8,958		
Finance/Real Estate/Business Services	10	515	953	1,058	6,993		
IoT-related (Among the above)	0	0	265	0	265		
Total	12,471	38,734	24,919	13,388	109,198		

N: Number of VC firms responded

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Chart 6-31: Establishment and maturity of funds

	End of March 2014	April 2014 -	End of March 2015	
	Elia of Maich 2014	Established	Matured	End of Match 2013
Number of funds	389	39	51	364
Total number of limited partners	2,388	164	185	2,342
Capital commitments (Yen millions)	1,754,170	91,119	220,549	1,642,578

N: Number of VC firms responded

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Chart 6-32: Types of investors for funds established between April 2014 and March 2015

Tuna of investors	April 2014 -	March 2015
Type of investors	Number of investors	Amount (yen mil)
I. GP/Managing partners	45	4,478
II. Domestic total	193	57,357
Family/Individual relatives	44	787
Other VC/Fund of funds	14	6,590
Corporations	73	18,569
Bank/Trust and credit unions	45	13,270
Insurance companies	3	9,660
Brokerage firms	2	101
Pension funds	0	0
Government/Local public bodies (non-pension)	6	5,680
Academic societies/Universities	0	0
Other domestic	6	2,700
III. Overseas total	4	4,300
Total ( I+II+III )	242	66,135

N: Number of VC firms responded

26

*Note:* Capital commitments are based on the amounts committed to funds (In the absence of committed amounts, based on the amount actually paid into funds).

Note 1: The term-end figures may not agree with the cash flow figures during the period owing to non-response.

*Note 2:* Capital commitments are based on the amounts committed to funds (In the absence of committed amounts, based on the amount actually paid into funds).

Chart 6-33: Exit status of deals invested by VC firms

			April 2014 - March 2015				
		Number of deals	Amount	Realized gain/loss	Unrealized gain/loss		
IPO		17	9,750	18,680	2,459		
Sale to a secondary fund		3	13	2			
Calata another thind news.	M&A	3	38	69			
Sale to another third party	Other	6	1,934	30			
Write-off/Settlements		4	66	-66			
Buybacks by company management		44	694	-317			
Other		10	151	-7			

N: Number of VC firms responded

36

# Chart 6-34: Exit status of deals invested by partnerships

(Yen millions)

			April 2014 - March 2015				
		Number of deals	Amount	Realized gain/loss	Unrealized gain/loss		
IPO		99	19,557	50,654	19,095		
Sale to a secondary fund		11	163	-10			
Sale to another third party	M&A	33	4,187	3,677			
	Other	110	4,811	2,788			
Write-off/Settlements		66	3,385	-3,232			
Buybacks by company management		232	8,030	-5,377			
Other		44	1,072	88			

N: Number of VC firms responded

66

# Chart 6-35: Exit status of deals invested by VC firms and partnerships

(Yen millions)

			April 2014 - March 2015				
		Number of deals	Amount	Realized gain/loss	Unrealized gain/loss		
IPO		116	29,307	69,334	21,554		
Sale to a secondary fund		14	176	-8			
Colo to on oth on third monto.	M&A	36	4,225	3,746			
Sale to another third party	Other	116	6,745	2,818			
Write-off/Settlements		70	3,451	-3,298			
Buybacks by company management		276	8,724	-5,694			
Other		54	1,223	82			

N: Number of VC firms responded

70

# CHAPTER I-2. Turnaround / Buyout Investment

#### 1. Investment/loan Balance

#### (1) Status of investment/loan balance

Chart 1-1 illustrates the change in the balance of investments/loans in turnaround/buyout over the two most recent fiscal years. The breakdown of the balance and the number of deals are given in Chart 1-2. The amount of investment (investment and/or loan) and the numbers of deals in the charts are calculated by simply adding up the figures given in survey answers.

114. 5
100
114. 5
98. 9
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End of March 2014 End of March 2015

Chart 1-1: Change in balance of investments/loans in turnaround/buyout

Note: Numbers above are based solely on the latest survey.

Chart 1-2: Number of deals and balance (as of the end of March 2015)

	Number of	Number of		
	deals	y/y % change	(Yen millions)	y/y % change
Investments	100	9.9%	97,046	-14.6%
Loans	9	50.0%	1,822	34.3%
Total	109	11.2%	98,868	-13.7%
N: Number of PE firms responded	N=32	N=30	N=31	N=29

Note 1: Numbers above refer to PE firms that provided the number of deals and/or investment/loan amount.

*Note 2*: y/y % change is based on answers from PE firms that provided the number of deals and/or investment/loan amount for both 2014 and 2015 (as of the end of March).

#### (2) Investment/loan balance per deal

Chart 1-3 "Investment/loan balance per deal" refers to PE firms that provided both the balance and the number of deals. Per-deal figure is calculated by dividing the total amount of balance by the total number of deals.

Chart 1-3: Investment/loan balance per deal

(Yen millions)

			,
	End of March 2014	End of March 2015	y/y % change
Number of deals	88	97	
Investment balance	116,243	97,046	
Investment balance per deal	1,320.9	1,000.5	-23.4%
Number of loans outstanding	6	9	
Balance of loans outstanding	1,356	1,822	
Balance per loan	226.0	202.4	-10.4%
Total number of deals/loans	94	106	
Total balance	114,529	98,868	
Total balance per deal/loan	1,218.4	932.7	-23.4%

N: Number of VC firms responded

N=29

#### (3) Distribution of PE firms by investment/loan balance

The following shows the distribution of turnaround/buyout investment firms (PE firms) by the size of investment/loan balance. Chart 1-4 shows the number of PE firms, the amount of investment/loan balance and the composition ratio for each range of balance. Chart 1-5 compares a share of the top five PE firms to the rest of the firms in terms of the investment/loan balance.

Chart 1-4: Distribution of PE firms by investment/loan balance (as of the end of March 2015)

Balance range (Yen billions)	Number of PE firms	Total balance (Yen billions)	Percentage
1 or less	4	23	2.4%
over 1 - 5	5	135	13.7%
over 5 - 10	2	134	13.5%
over 10 - 50	5	696	70.4%
over 50	0	0	0.0%
Total	16	989	100.0%

Chart 1-5: Share of the top 5 PE firms in terms of investment/loan balance

	Total balance	
	(Yen billions)	Percentage
Top 5	696	70.4%
Top 6th and below	293	29.6%

Note 1: Numbers above refer to PE firms that provided both the number of deals and investment/loan amount.

*Note 2*: y/y % change is based on answers from PE firms that provided both the number of deals and investment/loan amount for both 2014 and 2015 (as of the end of March).

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

#### 2. Investment/loan Amount Made During the Year

#### (1) Status of investment/loan amount made during the year

Chart 2-1 shows the change in the overall of investment/loan amount that were made during the two most recent fiscal years. The breakdown of the number of deals and investment/loan amount made during the year for the most recent year are shown in Chart 2-2. The investment amount (investment and/or loan) and the numbers of deals in the charts are calculated by simply adding up the figures given in survey answers.

(¥ Billions)

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55. 4

50

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20

10

April 2013 - March 2014 April 2014 - March 2015

Chart 2-1: Change in PE investment/loan amount made during the year (April 2014 – March 2015)

Note: Numbers above are based solely on the latest survey.

Chart 2-2: Number of deals and investment/loan amount made during the year (April 2014– March 2015)

	Number		Amount	
	of deals	y/y % change	(Yen mil)	y/y % change
Common stocks	19	11.8%	13,958	19.6%
Classified stocks	5	0.0%	1,365	-15.3%
Bonds	7	16.7%	1,619	-53.0%
Others	7	-20.0%	693	380.4%
Total investments	37	16.7%	17,635	-3.2%
Loans	5	0.0%	646	-48.2%
Total investments/loans	44	14.3%	55,437	-6.1%
N: Number of PE firms respon	ded	N=26		N=26

Note 1: Numbers above refer to PE firms that provided the number of deals and/or investment/loan amount.

Note 2: y/y % change is based on answers from PE firms that provided the number of deals and investment/loan amount for both periods, Apr. 2013 – Mar. 2014 and Apr. 2014 – Mar. 2015.

#### (2) Investment/loan amount made during the year per deal

Chart 2-3 "Investment/loan amount per deal" refers to PE firms that provided both investment/loan amount and the number of deals. Per-deal figure is calculated by dividing the total amount of investment/loan by the total number of deals.

Chart 2-3: Investment/loan amount made during the year per deal (April 2013 – March 2015)

(Yen millions)

	April 2013-March 2014	April 2014-March 2015	y/y % change
Number of deals	35	37	
Investment amount	25,209	17,635	
Per deal	720.3	476.6	-17.0%
Number of loans outstanding	5	5	
Loan amount	1,246	646	
Per deal	249.2	129.2	-48.2%
Total number of deals	40	44	
Total investments and loans	26,455	55,437	
Per deal	661.4	1,259.9	-17.9%

N: Number of PE firms responded

N=26

# (3) Distribution of PE firms by investment/loan amount during the year

Shown below is the distribution of PE firms classified by investment/loan amount made during the year. Chart 2-4 shows the number of PE firms, the total amount of investment/loan made during the year and the composition ratio for each range of the investment amount. Chart 2-5 compares the share of top three PE firms to that of the rest of the firms in terms of investment/loan amount during the year.

Chart 2-4: Distribution of PE firms by investment/loan amount (April 2014 – March 2015)

Investment/loan amount	Number of	Total amount of investment/loan	
(Yen billions)	PE firms	(Yen billions)	Percentage
0	2	0.0	0.0%
1 or less	11	5.8	10.4%
over 1 - 5	2	3.9	7.0%
over 5 - 10	1	8.6	15.6%
over 10 - 20	0	0.0	0.0%
over 20	1	37.2	67.0%
Total	17	55.4	100.0%

Note: "0" billion yen for investments/loans means that there is a balance but no follow-on investment or loan is made during the year.

Note 1: Numbers above refer to PE firms that provided both the number of deals and investment/loan amount.

*Note 2*: y/y % change is based on answers from PE firms that provided the number of deals and investment/loan amount for both periods, Apr. 2013 – Mar. 2014 and Apr. 2014 – Mar. 2015.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Chart 2-5: Share of the top 3 PE firms in terms of investment/loan amount made during the year (April 2014 - March 2015)

	Total amount of investment/loan			
	(Yen billions) Percentage			
Top 3	47.8	86.3%		
Top 4th and below	7.6	13.7%		

#### (4) New investment and follow-on investment

Chart 2-6 show the simple totaling of investment amount or the number of deals, year-on-year percentage change, and the investment amount per deal. These figures are based on the answers from PE firms that provided new and follow-on investment amount or the number of deals.

Chart 2-6: Amount invested and number of deals for new and follow-on investments

	Number of deals		Amount	
	Number of deals	y/y % change	(Yen mil)	y/y % change
New investments	30	0.0%	16,883	-4.3%
Follow-on investments	7	250.0%	753	29.3%
Total	37	16.7%	17,635	-3.2%
NAME OF COMME		37.06		37.06

N: Number of PE firms responded

N=26

N = 26

Note 1: Numbers above refer to PE firms that provided the number of deals and/or new and follow-on investment amount.

Note 2: y/y % change is based on answers from PE firms that provided the amounts for both periods, Apr. 2013 – Mar. 2014 and Apr. 2014 – Mar. 2015.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

#### (5) Distribution of deals by region

Chart 2-7 illustrates the number of deals and investment/loan amount by "Principal and Partnerships" by region according to the location of the deals.

Chart 2-7: Number of deals and investment/loan amount by region (April 2014 – March 2015)

	Number of deals	Percentage	Amount (Yen millions)	Percentage
Japan total	35	94.6%	18,067	32.7%
Hokkaido	0	0.0%	0	0.0%
Tohoku	0	0.0%	0	0.0%
Kanto (excl. Tokyo)	4	10.8%	1,685	3.1%
Tokyo	4	10.8%	10,443	18.9%
Chubu	7	18.9%	1,361	2.5%
Kinki	4	10.8%	769	1.4%
Chugoku	8	21.6%	1,219	2.2%
Shikoku	0	0.0%	0	0.0%
Kyushu and Okinawa	7	18.9%	787	1.4%
Overseas total	2	5.4%	37,156	67.3%
China	0	0.0%	0	0.0%
Southeast Asia	0	0.0%	0	0.0%
Other Asia-Pacific region	0	0.0%	0	0.0%
Europe	0	0.0%	0	0.0%
North America	1	2.7%	5,245	9.5%
Other Regions	1	2.7%	31,911	57.8%
Total	37	100.0%	55,223	100.0%

N: Number of PE firms responded

N=29

N=29

Note 1: Numbers above refer to PE firms that provided the number of deals and/or investment/loan amount.

Note 2: Percentages of numbers of deals and amounts are calculated based on the total sum of each region.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

#### (6) Distribution of deals by industry

Charts 2-8, 2-9 and 2-10 show the total figures and the composition ratio for the number of deals and investment amount, and investment amount per deal for "New", "Follow-on" and "New and Follow-on" investments. These figures are based on answers from PE firms that provided the number of deals and/or investment amount by industry.

Chart 2-8: Distribution of deals of new investment by industry (April 2014 – March 2015)

	Number of deals	Number of deals		Amount	
	Number of deals	Percentage	(Yen millions)	Percentage	deal (Yen millions)
IT-related	3	8.3%	2,656	4.7%	885.3
Telecommunications/Networking and Equipment	0	0.0%	0	0.0%	NA
Computers and Peripherals/IT services	1	2.8%	803	1.4%	803.3
Software	0	0.0%	0	0.0%	NA
Semi-conductors/Electrical Machinery & Equipment	2	5.6%	1,853	3.3%	926.5
Biotechnology, Medical and Healthcare	3	8.3%	5,659	10.0%	1,886.3
Biotechnology/Medicine	1	2.8%	5,245	9.2%	5,244.8
Medical Device and Equipment/Healthcare-related	2	5.6%	414	0.7%	207.0
Industrial/Energy/Other	12	33.3%	34,013	59.9%	2,834.4
Products and Services	18	50.0%	14,472	25.5%	804.0
Media/Entertainment/Retailing/Consumer Goods	13	36.1%	13,957	24.6%	1,073.6
Finance/Real Estate/Business Services	5	13.9%	515	0.9%	103.0
IoT-related (Among the above)	0	0.0%	0	0.0%	NA
Total	36	100.0%	56,800	100.0%	1,577.8
N: Number of PE firms responded	N=28	_	N=28		N=28

Note 1: Numbers above refer to PE firms that provided the number of deals and/or investment amount.

Chart 2-9: Distribution of deals of follow-on investment by industry (April 2014– March 2015)

	Number of deals		Amount		Amount per deal
	Number of deals	Percentage	(Yen millions)	Percentage	(Yen millions)
IT-related	1	14.3%	60	7.5%	60.0
Telecommunications/Networking and Equipment	0	0.0%	0	0.0%	NA
Computers and Peripherals/IT services	0	0.0%	0	0.0%	NA
Software	0	0.0%	0	0.0%	NA
Semi-conductors/Electrical Machinery & Equipment	1	14.3%	60	7.5%	60.0
Biotechnology, Medical and Healthcare	0	0.0%	0	0.0%	NA
Biotechnology/Medicine	0	0.0%	0	0.0%	NA
Medical Device and Equipment/Healthcare-related	0	0.0%	0	0.0%	NA
Industrial/Energy/Other	3	42.9%	565	70.3%	188.3
Products and Services	3	42.9%	179	22.3%	59.6
Media/Entertainment/Retailing/Consumer Goods	3	42.9%	179	22.3%	59.6
Finance/Real Estate/Business Services	0	0.0%	0	0.0%	NA
IoT-related (Among the above)	0	0.0%	0	0.0%	NA
Total	7	100.0%	804	100.0%	114.8
N: Number of PE firms responded	N=22		N=22		N=22

Note 1: Numbers above refer to PE firms that provided the number of deals and/or investment amount.

Note 2: "Amount per deal" refers to PE firms that provided both the number of deals and investment amount by industry.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Note 2: "Amount per deal" refers to PE firms that provided both the number of deals and investment amount by industry.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

Chart 2-10: Distribution of deals of new and follow-on investments by industry (April 2014 – March 2015)

	Number of deals		Amount		Amount per deal
	Number of deals	Percentage	(Yen millions)	Percentage	(Yen millions)
IT-related	4	9.3%	2,716	4.7%	679.0
Telecommunications/Networking and Equipment	0	0.0%	0	0.0%	NA
Computers and Peripherals/IT services	1	2.3%	803	1.4%	803.3
Software	0	0.0%	0	0.0%	NA
Semi-conductors/Electrical Machinery & Equipment	3	7.0%	1,913	3.3%	637.7
Biotechnology, Medical and Healthcare	3	7.0%	5,659	9.8%	1,886.3
Biotechnology/M edicine	1	2.3%	5,245	9.1%	5,244.8
Medical Device and Equipment/Healthcare-related	2	4.7%	414	0.7%	207.0
Industrial/Energy/Other	15	34.9%	34,578	60.0%	2,305.2
Products and Services	21	48.8%	14,651	25.4%	697.7
Media/Entertainment/Retailing/Consumer Goods	16	37.2%	14,136	24.5%	883.5
Finance/Real Estate/Business Services	5	11.6%	515	0.9%	103.0
IoT-related (Among the above)	0	0.0%	0	0.0%	NA
Total	43	100.0%	57,603	100.0%	1,339.6
N. Nyumbar of DE firms room and ad	NI_20		N-20		N-29

N: Number of PE firms responded

N=28

N=28

N=28

Note 1: Numbers above refer to PE firms that provided the number of deals and/or investment amount.

Note 2: "Amount per deal" refers to PE firms that provided both the number of deals and investment amount by industry.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

# 3. Overview of Investment Partnership

#### (1) Overall status of funds

Chart 3-1 shows the status of funds set up by PE firms. Chart 3-2 shows the distribution of PE firms concerning the most recent number of funds and the total amount of money invested in such funds. Chart 3-3 shows the number of funds set up or matured during the year as well as the number of limited partners and the total amount of capital commitments to those funds.

Chart 3-1: Status of funds

	End of March 2014	End of March 2015	y/y % change
Number of funds	36	31	-11.4%
Total number of limited partners	219	187	-5.6%
Capital commitments to funds (Yen billions)	321.7	277.4	-13.8%
Average number of limited partners	7.8	7.2	-1.9%
Average capital commitments (Yen billions)	8.9	9.0	-1.9%
N: Number of PE firms responded			
(Average number of limited partners)	N=14	N=13	N=13
(Average capital commitments)	N=18	N=17	N=17

*Note 1:* Average figures are calculated based on answers from PE firms that provided both the number of funds and the number of limited partners, or both the number of funds and the amount of capital commitments.

Chart 3-2: Distribution of PE firms by the number of funds/amount of capital commitments (as of the end of March 2015)

Number of funds	Number of PE firms	Capital to funds
1	7	10 or 1
2	5	over 1
3	3	over 5
4 and over	1	over 1
Total	16	

Capital commitments to funds (Yen billions)	Number of PE firms
10 or less	8
over 10 - 50	7
over 50 - 100	0
over 100	1
Total	16

Note 2: y/y % change is based on answers from PE firms that provided both the number of deals and investment/loan amount for both 2014 and 2015 (as the end of March).

*Note 3*: Capital commitments are based on the amounts committed to funds (In the absence of capital commitments, based on the amount actually paid into funds).

Chart 3-3: The number of limited partners and amount of capital commitments per fund for funds established or matured during the year (April 2014 – March 2015)

	Established	Matured
Number of funds	2	4
Total number of limited partners	24	8
Capital commitments to funds (Yen billions)	6.2	37.4
Average number of limited partners	12.0	2.7
Average capital commitments (Yen billions)	3.1	9.4

N: Number of PE firms responded

(Average number of limited partners) N=2 N=2 (Average capital commitments) N=2 N=3

#### (2) Breakdown of investor type

Chart 3-4 shows the breakdown of investors to the funds newly established between April 2014 and March 2015.

Chart 3-4: Breakdown of investors (April 2014 – March 2015)

Invest type	Number of		Amount	(77 '31' )	
31	investers	Percentage	(Yen millions)	Percentage	(Yen millions)
I. GP/Managing partners	2	8.3%	200	3.2%	100.0
II. Domestic total	22	91.7%	5,960	96.8%	270.9
Family/Individual relatives	7	29.2%	1,160	18.8%	165.7
Other VC/Fund of funds	1	4.2%	200	3.2%	200.0
Corporations	4	16.7%	1,400	22.7%	350.0
Bank/Trust and credit unions	9	37.5%	3,000	48.7%	333.3
Insurance companies	0	0.0%	0	0.0%	NA
Brokerage firms	1	4.2%	200	3.2%	200.0
Pension funds	0	0.0%	0	0.0%	NA
Government/Local public bodies (non-pension)	0	0.0%	0	0.0%	NA
Academic societies/Universities	0	0.0%	0	0.0%	NA
Other domestic	0	0.0%	0	0.0%	NA
III. Overseas total	0	0.0%	0	0.0%	NA NA
Total ( I+II+III )	24	100.0%	6,160	100.0%	256.7
N: Number of DE firms rean and ad	N-2		N-2		NI—

N: Number of PE firms responded

N=2

=2

Note 1: "N" refers to PE firms that own at least one fund as of the end of March 2015, and that have answered concerning funds established or matured during the period.

Note 2: Average figures are calculated based on answers from PE firms that provided both the number of funds and the number of limited partners, or both the number of funds and the amount of capital commitments.

*Note 3*: Capital commitments are based on the amounts committed to funds (In the absence of capital commitments, based on the amount actually paid into funds).

Note 1: Numbers above refer to PE firms that provided the number of investors or investment amount (excluding firms that replied there was no investment from any type of investor).

Note 2: Per-investor figures refer to PE firms that provided both the number of investors and the amount.

Note 3: The total may not correspond to the sum of breakdown owing to rounding and non-response.

*Note 4:* Capital commitments are based on the amounts committed to funds (In the absence of committed amounts, based on the amount actually paid into funds).

# 4. Results of the Survey

Chart 4-1: Investment/loan balance of PE firms

	As of the end	of March 2014	As of the end	of March 2015
	Number of deals Amount (Yen millions)		Number of deals	Amount (Yen millions)
Investments	92	116,243	100	97,046
Loans	6	1,356	9	1,822
Total	98	114,529	109	98,868
N: Number of PE firms responded			32	31

# Chart 4-2: Investment/loan balance by region

	As of the end	of March 2014	As of the end	of March 2015
	Number of deals	Amount (Yen millions)	Number of deals	Amount (Yen millions)
Japan total	93	111,630	102	98,866
Hokkaido	1	1,552	1	1,420
Tohoku	3	1,720	1	1,000
Kanto (excl. Tokyo)	5	15,502	7	14,660
Tokyo	29	48,060	24	36,236
Chubu	3	5,686	4	6,711
Kinki	3	92	6	858
Chugoku	19	6,285	35	7,197
Shikoku	0	0	0	0
Kyushu and Okinawa	17	5,358	15	5,116
Overseas total	1	1,001	0	0
China	0	0	0	0
Southeast Asia	0	0	0	0
Other Asia-Pacific region	0	0	0	0
Europe	0	0	0	0
North America	0	0	0	0
Other Regions	1	1,001	0	0
Total	119	115,181	103	98,866
N: Number of PE firms responded			32	31

Chart 4-3: Breakdown of investment/loan made during the year

	April 2013 - March 2014							
	New investr	nensts/loans	Follow-on inve	estments/loans	To	Total		
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)		
I Common stocks	15	11,094	2	582	17	11,676		
■ Classified stocks	3	5,359	0	0	3	5,359		
Ⅲ Bonds	7	6,172	0	0	7	6,172		
IV Other	8	2,002	0	0	8	2,002		
Total Investments (I+II+III+IV)	33	24,627	2	582	35	25,209		
Total Loans	5	1,246	0	0	5	1,246		
Total (Investments + Loans)	38	25,873	2	582	40	26,455		
N: Number of PE firms responded			•		33	33		

N: Number of PE firms responded

	April 2014 - March 2015						
	New investr	nensts/loans	Follow-on inve	estments/loans	Total		
	Number of deals Amount (Yen mil)		Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	
I Common stocks	15	13,420	4	539	19	13,958	
■ Classified stocks	5	1,365	0	0	5	1,365	
<b>Ⅲ</b> Bonds	5	1,434	2	185	7	1,619	
IV Other	6	664	1	29	7	693	
Total Investments (I+II+III+IV)	30	16,883	7	753	37	17,635	
Total Loans	4	596	1	50	5	646	
Total (Investments + Loans)	34	17,479	8	803	44	55,437	

N: Number of PE firms responded

31

Note: The total may not correspond to the sum of breakdown owing to non-response.

Chart 4-4: Distribution of deals by region (April 2014 – March 2015)

	New inv	New investment		Follow-on investment		Total	
	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	Number of deals	Amount (Yen mil)	
Japan total	28	17,264	7	804	35	18,067	
Hokkaido	0	0	0	0	0	0	
Tohoku	0	0	0	0	0	0	
Kanto (excl. Tokyo)	3	1,635	1	50	4	1,685	
Tokyo	4	10,443	0	0	4	10,443	
Chubu	4	1,120	3	241	7	1,361	
Kinki	4	769	0	0	4	769	
Chugoku	7	714	1	505	8	1,219	
Shikoku	0	0	0	0	0	0	
Kyushu and Okinawa	5	779	2	8	7	787	
Overseas total	2	37,156	0	0	2	37,156	
China	0	0	0	0	0	0	
Southeast Asia	0	0	0	0	0	0	
Other Asia-Pacific region	0	0	0	0	0	0	
Europe	0	0	0	0	0	0	
North America	1	5,245	0	0	1	5,245	
Other Regions	1	31,911	0	0	1	31,911	
Total	30	54,420	7	804	37	55,223	
N: Number of PE firms responded 29							

Chart 4-5: Breakdown of deals of new investment by industry

Industry	April 2014 -	March 2015
Industry	Number of deals	Amount (Yen mil)
Telecommunications/Networking and Equipment	0	0
Computers and Peripherals/IT services	1	803
Software	0	0
Semi-conductors/Electrical Machinery & Equipment	2	1,853
Biotechnology/M edicine	1	5,245
Medical Device and Equipment/Healthcare-related	2	414
Industrial/Energy/Other	12	34,013
Media/Entertainment/Retailing/Consumer Goods	13	13,957
Finance/Real Estate/Business Services	5	515
IoT-related (Among the above)	0	0
Total	36	56,800
N: Number of PE firms responded	28	28

Chart 4-6: Breakdown of deals of follow-on investment by industry

In directors	April 2014 -	March 2015
Industry	Number of deals	Amount (Yen mil)
Telecommunications/Networking and Equipment	0	0
Computers and Peripherals/IT services	0	0
Software	0	0
Semi-conductors/Electrical Machinery & Equipment	1	60
Biotechnology/M edicine	0	0
Medical Device and Equipment/Healthcare-related	0	0
Industrial/Energy/Other	3	565
Media/Entertainment/Retailing/Consumer Goods	3	179
Finance/Real Estate/Business Services	0	0
IoT-related (Among the above)	0	0
Total	7	804

N: Number of PE firms responded

22 22

Note: The total may not correspond to the sum of breakdown owing to non-response.

Chart 4-7: Breakdown of deals of new and follow-on investments by industry

Industry	April 2014 - March 2015		
industry	Number of deals	Amount (Yen mil)	
Telecommunications/Networking and Equipment	0	0	
Computers and Peripherals/IT services	1	803	
Software	0	0	
Semi-conductors/Electrical Machinery & Equipment	3	1,913	
Biotechnology/Medicine	1	5,245	
Medical Device and Equipment/Healthcare-related	2	414	
Industrial/Energy/Other	15	34,578	
Media/Entertainment/Retailing/Consumer Goods	16	14,136	
Finance/Real Estate/Business Services	5	515	
IoT-related (Among the above)	0	0	
Total	43	57,603	

N: Number of PE firms responded

2

28

Chart 4-8: Status of funds

	End of March 2014	April 2014 - March 2015		End of March 2015
	End of March 2014	Established	Matured	End of Water 2013
Number of funds	36	2	4	31
Total number of limited partners	219	24	8	187
Capital commitments (Yen millions)	321,675	6,160	37,430	277,420

N: Number of PE firms responded

18

Note 1: The term-end figures may not agree with the figures during the period owing to non-response.

*Note 2:* Capital commitments are based on the amounts committed to funds (In the absence of committed amounts, based on the amount actually paid into funds).

Chart 4-9: Manner of acquisition

April 2014 - March 2015	April 2014 - March 2015				
Continued listing	2				
Secondary buyout	0				
Bankruptcy	1				
Public to Private	0				
Business succession	11				
Other capitalization strategy	6				

N: Number of PE firms responded

N=25

Chart 4-10: Manner of exit by deals

(Yen millions)

-		April 2013 - March 2014				
		Number of deals	Realized gain/loss	Unrealized gain/loss		
IPO		1	0	6,577		
Sale to a secondary fund		0	0			
Sale to another third party	M&A	10	5,684			
	Other	1	0			
Write-off/settlements		0	0			
Buybacks by company management		1	0			
Other		8	103			

N: Number of PE firms responded

N=23

Note: The total may not correspond to the sum of breakdown owing to non-response.

**CHAPTER II** 

Survey on Venture Capital Fund Status

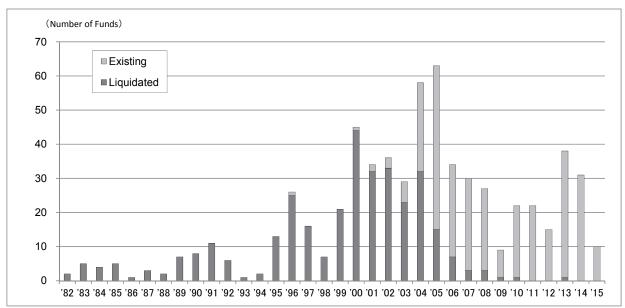
#### Reading the charts and tables (points of notice)

- In the Fund Status survey, the number of funds responded to the survey was 625, and the number of funds for which the internal rate of return was calculated was 374.
- Vintage year of a fund is the year where the first closing date belongs. (The first contribution cut-off date or the first cash flow date.)
- The sample funds in the survey consist of those funds for which both the first closing date and the fund size (cumulative capital contributions) are available.
- Regarding foreign currency funds, total capital contributions are converted into yen at the end-of-the-month
  exchange rate for the first closing date. In computing the IRR, the end-of-the-month exchange rate for the
  cash flow dates is used.
- For year 2015, data up to the end of May are compiled; for the other years, data for the entire calendar year are adopted.

# 1. Fund Type and the Number of Funds

## (1) Number of funds by vintage year

The following chart shows the number of funds by vintage year based on the first closing date. (Liquidated/Existing funds are separately shown.)

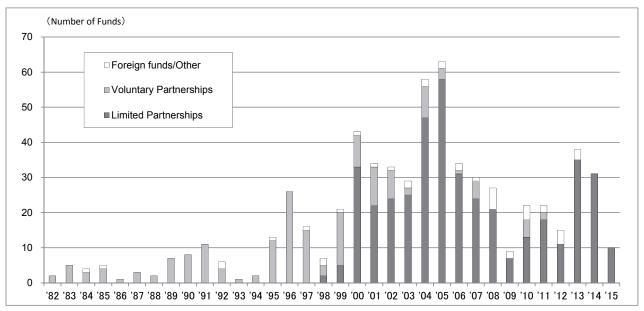


Vintage	Number of Funds			
year	Total	Liquidated	Existing	
'82	2	2	0	
'83	5	5	0	
'84	4	4	0	
'85	5	5	0	
'86	1	1	0	
'87	3	3	0	
'88	2	2	0	
'89	7	7	0	
'90	8	8	0	
'91	11	11	0	
'92	6	6	0	
'93	1	1	0	
'94	2	2	0	
'95	13	13	0	
'96	26	25	1	
'97	16	16	0	
'98	7	7	0	
'99	21	21	0	
'00	45	44	1	
'01	34	32	2	
'02	36	33	3	
'03	29	23	6	
'04	58	32	26	
'05	63	15	48	
'06	34	7	27	
'07	30	3	27	
'08	27	3	24	
'09	9	1	8	
'10	22	1	21	
'11	22	0	22	
'12	15	0	15	
'13	38	1	37	
'14	31	0	31	
'15	10	0	10	
Total	643	334	309	

## (2) Number of funds by fund type

The following chart shows the number of funds established after the enactment of the Limited Partnership Act for Investment in November 1998. The funds are classified into limited partnerships based on the Act and voluntary partnerships ruled by the Civil Code.

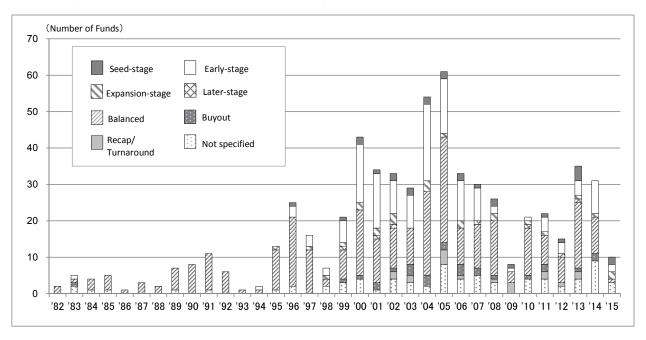
Note: "Other" includes foreign-based corporate-type funds and US limited partnerships, etc.



Vintage		Number	of Funds						
year	T 1	Limited	Voluntary	Foreign					
year	Total	Partnerships	Partnerships	funds/Other					
'82	2	0	2	0					
'83	5	0	5	0					
'84	4	0	3	1					
'85	5	0	4	1					
'86	1	0	1	0					
'87	3	0	3	0					
'88	2	0	2	0					
'89	7	0	7	0					
'90	8	0	8	0					
'91	11	0	11	0					
'92	6	0	4	2					
'93	1	0	1	0					
'94	2	0	2	0					
'95	13	0	12	1					
'96	26	0	26	0					
'97	16	0	15	1					
'98	7	2	3	2					
'99	21	5	15	1					
'00	43	33	9	1					
'01	34	22	11	1					
'02	33	24	8	1					
'03	29	25	2	2					
'04	58	47	9	2					
'05	63	58	3	2					
'06	34	31	1	2					
'07	30	24	5	1					
'08	27	21	0	6					
'09	9	7	0	2					
'10	22	13	5	4					
'11	22	18	2	2					
'12	15	11	0	4					
'13	38	35	0	3					
'14	31	31	0	0					
'15	10	10	0	0					
Total	638	417	179	42					

## (3) Number of funds by focused stage

The following chart shows the distribution of focused stages by vintage year.



Vintaga				N	umber of Fund	ds					
Vintage year	Total	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not specified		
'82	2	0	0	0	0	2	0	0	0		
'83	5	0	1	0	0	1	1	0	2		
'84	4	0	0	0	0	3	0	0	1		
'85	5	0	0	0	0	4	0	0	1		
'86	1	0	0	0	0	1	0	0	0		
'87	3	0	0	0	0	3	0	0	0		
'88	2	0	0	0	0	2	0	0	0		
'89	7	0	0	0	0	6	0	0	1		
'90	8	0	0	0	0	8	0	0	0		
'91	11	0	0	0	0	10	0	0	1		
'92	6	0	0	0	0	6	0	0	0		
'93	1	0	0	0	0	1	0	0	0		
'94	2	0	1	0	0	1	0	0	0		
'95	13	0	0	0	1	11	0	0	1		
'96	25	1	3	0	0	19	0	0	2		
'97	16	0	3	1	0	12	0	0	0		
'98	7	0	2	1	0	2	0	0	2		
'99	21	1	6	1	1	8	1	0	3		
'00	43	2	16	2	0	18	1	0	4		
'01	34	1	15	2	1	12	2	0	1		
'02	33	2	9	3	1	11	1	2	4		
'03	29	2	9	0	0	10	3	2	3		
'04	54	2	21	3	0	23	3	0	2		
'05	61	2	15	1	0	29	2	4	8		
'06	33	2	11	2	0	10	3	1	4		
'07	30	1	9	0	1	12	2	0	5		
'08	26	2	2	2	0	15	1	1	3		
'09	8	1	1	0	0	3	0	3	0		
'10	21	0	1	1	1	13	1	0	4		
'11	22	1	4	1	0	8	2	2	4		
'12	15	1	3	0	1	7	0	1	2		
'13	35	4	4	1	1	18	1	2	4		
'14	31	0	9	1	0	10	2	0	9		
'15	10	2	2	2	0	1	0	0	3		
Total	624	27	147	24	8	300	26	18	74		

# (4) Number of funds by focused industry

The following table shows the breakdown of all funds classified by focused industry.

Industry	Number of Funds	Percentage				
Telecommunications/Networking and Equipment	14	2%				
Computers and Peripherals/IT services	32	5%				
Software	2	0%				
Semi-conductors/Electrical Machinery & Equipment	7	1%				
Biotechnology/Medicine	30	5%				
Medical Device and Equipment/Healthcare-related	5	1%				
Industrial/Energy/Other	25	4%				
Media/Entertainment/Retailing/Consumer Goods	7	1%				
Finance/Real Estate/Business Services	5	1%				
Clean Technology	4	1%				
Not specified	459	78%				
Total (1982-2015)	590	100%				

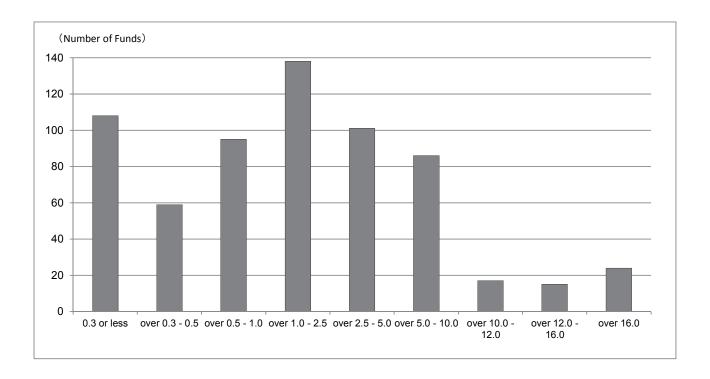
# (5) Number of funds by focused region

The following table shows the breakdown of all funds classified by focused region.

Region	Number of Funds	Percentage
Hokkaido	11	
Tohoku	16	
Kanto (excl. Tokyo)	21	
Tokyo	27	
Chubu	21	34%
Kinki	45	
Chugoku	35	
Shikoku	6	
Kyushu and Okinawa	28	
Asia-Pacific	32	5%
Europe	0	0%
North America	13	2%
Mainly domestic	285	46%
Mainly overseas	21	3%
Not specified	57	9%
Total (1982-2015)	618	100%

## (6) Number of funds by size

The following chart shows the number of funds by size, where size is represented by the cumulative capital contributions up to the time of survey (where there are multiple capital calls, the relevant sums are added).



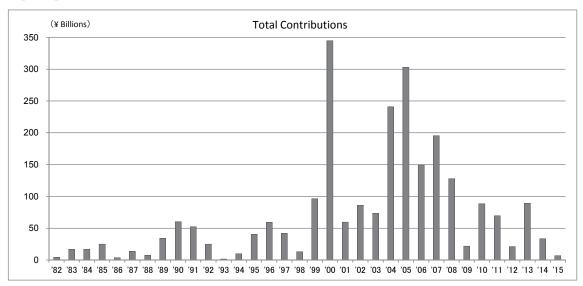
(Number of funds)

						(Transcer of Tanas)								
		Vintage Year												
Fund Size (Yen billions)	2011	2012	2013	2014	2015	Total (1982-2015)								
0.3 or less	2	4	14	21	5	108								
over 0.3 - 0.5	1	3	2	1	1	59								
over 0.5 - 1.0	5	2	8	1	1	95								
over 1.0 - 2.5	5	4	3	1	3	138								
over 2.5 - 5.0	4	1	6	5	0	101								
over 5.0 - 10.0	4	1	3	2	0	86								
over 10.0 - 12.0	0	0	0	0	0	17								
over 12.0 - 16.0	1	0	1	0	0	15								
over 16.0	0	0	1	0	0	24								
Total	22	15	38	31	10	643								

# 2. Characteristics and Average Size of Fund

## (1) Total contributions by vintage year

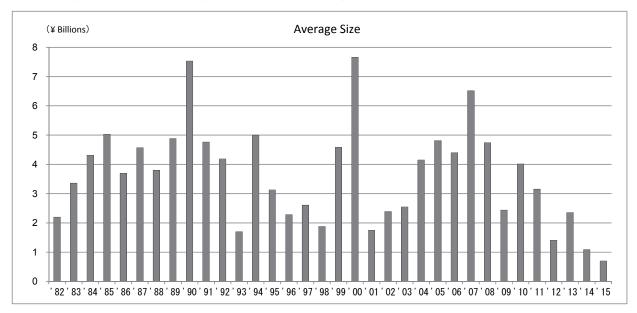
The following chart shows the cumulative total contributions up to the time of survey by vintage year (where there are multiple capital calls, the relevant sums are added).



Vintage		Total
Year	Number of Funds	Contributions
1 cui		(Yen billions)
'82	2	4.4
'83	5	16.8
'84	4	17.3
'85	5	25.1
'86	1	3.7
'87	3	13.7
'88	2	7.6
'89	7	34.2
'90	8	60.3
'91	11	52.4
'92	6	25.1
'93	1	1.7
'94	2	10.0
'95	13	40.7
'96	26	59.4
'97	16	41.7
'98	7	13.1
'99	21	96.3
'00	45	344.7
'01	34	59.7
'02	36	86.1
'03	29	73.8
'04	58	240.7
'05	63	303.3
'06	34	149.5
'07	30	195.5
'08	27	128.0
'09	9	22.0
'10	22	88.3
'11	22	69.4
'12	15	21.2
'13	38	89.5
'14	31	33.7
'15	10	7.0
Total	643	2,436.1

# (2) Average size of funds by vintage year

The following chart shows the average size of funds by vintage year.

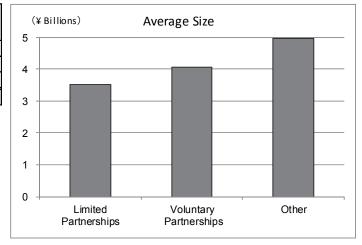


Vintage Year	Number of Funds	Average Size (Yen billions)
'82	2	2.2
'83	5	3.4
'84	4	4.3
'85	5	5.0
'86	1	3.7
'87	3	4.6
'88	2	3.8
'89	7	4.9
'90	8	7.5
'91	11	4.8
'92	6	4.2
'93	1	1.7
'94	2	5.0
'95	13	3.1
'96	26	2.3
'97	16	2.6
'98	7	1.9
'99	21	4.6
'00	45	7.7
'01	34	1.8
'02	36	2.4
'03	29	2.5
'04	58	4.2
'05	63	4.8
'06	34	4.4
'07	30	6.5
'08	27	4.7
'09	9	2.4
'10	22	4.0
'11	22	3.2
'12	15	1.4
'13	38	2.4
'14	31	1.1
'15	10	0.7
Total	643	-

#### (3) Average size of funds by fund type

All funds are classified according to legal regulations, and the average sizes are computed for each type.

Type of funds	Number of Funds	Average Size (Yen billions)
Limited Partnerships	417	3.5
Voluntary Partnerships	179	4.1
Other	42	5.0
Total	638	-



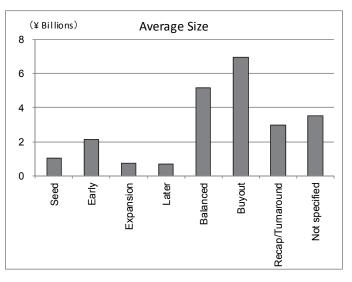
Note 1: "Other" includes foreign-based corporate-type funds and US limited partnerships, etc.

Note 2: Funds based on the Limited Partnership Act for Investment were started operating in 1999 onwards.

#### (4) Average size of funds by focused stage

All funds are classified according to their focused stage and the average sizes are computed for each stage.

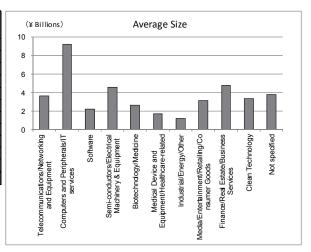
Stage	Number of Funds	Average Size (Yen billions)
Seed	27	1.0
Early	147	2.1
Expansion	24	0.7
Later	8	0.7
Balanced	300	5.2
Buyout	26	6.9
Recap/Turnaround	18	3.0
Not specified	74	3.5
Total	624	-



#### (5) Average size of funds by focused industry

All funds are classified according to their focused industry and the average sizes are computed for each industry.

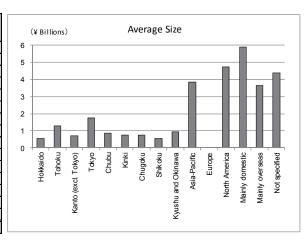
Industry	Number of Funds	Average Size (Yen billions)
Telecommunications/Networking and Equipment	14	3.6
Computers and Peripherals/IT services	32	9.2
Software	2	2.2
Semi-conductors/Electrical Machinery & Equipment	7	4.6
Biotechnology/Medicine	30	2.7
Medical Device and Equipment/Healthcare-related	5	1.7
Industrial/Energy/Other	25	1.3
Media/Entertainment/Retailing/Consumer Goods	7	3.1
Finance/Real Estate/Business Services	5	4.8
Clean Technology	4	3.4
Not specified	459	3.8
Total	590	-



#### (6) Average size of funds by focused region

All funds are classified according to their focused region and the average sizes are computed for each region.

Region	Number of Funds	Average Size (Yen billions)
Hokkaido	11	0.6
Tohoku	16	1.3
Kanto (excl. Tokyo)	21	0.7
Tokyo	27	1.7
Chubu	21	0.9
Kinki	45	0.7
Chugoku	35	0.8
Shikoku	6	0.5
Kyushu and Okinawa	28	0.9
Asia-Pacific	32	3.8
Europe	0	-
North America	13	4.7
Mainly domestic	285	5.9
Mainly overseas	21	3.7
Not specified	57	4.4
Total	618	-



# 3. Breakdown of investors

The following table shows the breakdown of investors by industry.

	Foreign Firms	i	0.0%	İ	Í	İ	1	i	%9:0	0.0%	0.8%	0.0%	1	ī	0.9%	1.3%	1.6%	0.3%	3.4%	2.9%	0.8%	1.4%	11.6%	2.6%	0.8%	2.4%	0.6%	0.0%	0.0%	0.0%	2.3%	0.7%	0.7%	0.0%	9.1%	2.0%
	Other Domestic	1	%0:0	-	1	-	-	1	7:0%	23.1%	20.2%	%0.0	1	1	3.0%	16.3%	25.9%	0.5%	1.7%	1.1%	0.2%	2.1%	8.3%	2.2%	2.3%	1.2%	0.7%	%0.0	%9.0	1.8%	7.3%	0.0%	2.2%	1.2%	1.0%	3.2%
	Academic societies / Universities	1	0.0%	1	1	1	1	-	%0:0	0.0%	0.0%	0.0%	1	1	0.0%	0.0%	%0:0	0.0%	3.4%	%9.0	%0:0	0.4%	0.0%	1.3%	1.2%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	%0.0	0.0%	0.7%
	Government/Local Public Bodies (Non-Pension)		%0:0	-	•	-	-	-	0.5%	0.6%	0.0%	0.0%	1	1	0.0%	3.6%	1.5%	0.0%	%0:0	4.9%	3.1%	5.1%	5.7%	6.3%	5.7%	7.7%	3.4%	8.4%	37.7%	7.0%	21.7%	4.6%	11.0%	0.3%	16.8%	2.9%
	Pension Funds	,	0.0%	-	-	-	-	-	0.0%	0.0%	0.0%	0.0%	-	1	0.0%	0.0%	0.0%	0.0%	8.0%	%8'9	%9.0	0.0%	0.0%	0.8%	5.4%	1.2%	6.5%	0.0%	0.0%	0.0%	%6:0	0.0%	%0:0	0.0%	0.0%	3.0%
Contributions	Brokerage Firms		%0:0	-	-	-	-	-	15.8%	5.1%	6.2%	%0:0	-	-	%9:0	3.2%	3.2%	1.5%	%0:0	1.2%	18.1%	22.6%	0.4%	1.0%	2.9%	14.8%	1.6%	5.7%	%0:0	0.1%	7.5%	%0.0	1.7%	0.0%	0.0%	4.2%
Percentage of Contributions	Insurance Companies		31.4%	-	•	-	-	-	28.3%	22.3%	%6.6	%0:08			4.2%	13.6%	18.8%	23.6%	27.4%	16.3%	%8.9	4.5%	3.6%	11.5%	16.2%	11.0%	12.2%	20.2%	14.6%	%0.9	18.2%	47.3%	2.5%	14.5%	%0:0	13.7%
	Bank/Trust and Credit Unions	,	%8'6	-	1	-	-	-	12.9%	7.0%	5.4%	0.0%	1	1	12.3%	21.1%	8.1%	12.8%	18.7%	12.8%	12.1%	16.5%	24.5%	24.1%	27.9%	16.1%	21.4%	5.8%	35.7%	41.7%	21.3%	33.6%	20.5%	27.6%	49.9%	20.3%
	Corporate Investors	,	49.0%	-	1	-	-	-	28.6%	28.8%	20.6%	0.0%	1	ı	36.0%	26.1%	11.3%	25.0%	7.9%	18.2%	16.9%	15.6%	14.9%	14.4%	14.7%	26.2%	26.3%	4.9%	5.3%	20.2%	16.2%	8.6%	29.0%	33.1%	11.0%	19.6%
	Other VC/ Fund of Funds	1	3.9%	-	ī	-	-	-	3.7%	7.5%	0.0%	0.0%	1	1	3.0%	2.4%	%2.6	2.3%	4.0%	3.4%	28.5%	2.6%	17.9%	5.7%	3.6%	10.8%	1.3%	0.7%	2.6%	0.0%	0.3%	0.0%	0.7%	1.4%	1.7%	4.6%
	Family/Private Individuals		%0:0	-	•	-	-	-	%0:0	1.8%	0:0%	%0.0		,	3.0%	0.4%	%0:0	1.7%	%0:0	10.0%	1.3%	%6.0	2.0%	2.0%	0.5%	0.2%	0.3%	%0.0	0.1%	0.1%	0.4%	0.7%	0.8%	2.9%	3.9%	1.8%
	General Partners	1	2.9%	-	•	-	-	-	2.8%	3.5%	%6.9	20.0%		ı	36.9%	11.9%	19.9%	2.5%	25.5%	21.8%	11.7%	28.2%	11.2%	28.2%	18.8%	8.3%	24.3%	54.4%	3.4%	23.1%	4.0%	4.5%	30.9%	19.0%	6.5%	21.0%
	Number of Funds	0	2	1	1	0	0	0	4	4	3	2	0	0	9	61	10	7	15	33	25	27	24	50	53	26	26	15	9	11	17	11	31	25	10	464
	Year	,82	183	'84	,85	98,	28,	88,	68,	06,	16,	'92	193	194	56,	96,	<i>L</i> 6,	86,	66,	00,	'01	'02	'03	'04	,05	90,	40.	80.	60,	10	11	12	13	114	15	Total

#### 4. Fund Performance

Computation method of performance indices

**IRR** 

Fund performance is measured by the internal rate of return, or IRR which is a cash flow-based return measure for the reason that a venture capital fund does not normally allow timely evaluation of fair market value, and it is difficult to liquidate the position once an investment is made. The IRR is the discount rate that, if all cash flows from an investment including contributions and distributions are discounted to the present value, would bring the total present value equal to zero. It is very close to the annual percentage yield on a fund. For a fund still being managed, the most recent residual value of the fund is marked to market, and this value is added to the positive cash flow at the most recent point.

Computation formula

IRR(r) is computed using the following formula.

$$0 = \sum_{i=0}^{n} \frac{C_i}{(1+r)^{t_i}}$$

 $t_i$ : The time between inception (0) and time point i

 $C_i$ : The amount of cash flow at time point  $t_i$  (Regarding contributions as negative cash flow, distributions as positive cash flow. The residual value of the fund at the final point in time  $t_n$  is added to the positive cash flow at  $t_n$ .)

*r*: IRR. This value *r* cannot be analytically arrived at, so an approximate solution is derived by sequential computation.

Assumptions

In computing the IRR for this survey, we assumed that all cash flows that occurred during the month actually took place at the end of the month, and regarded one month as one-twelfth year in considering the investment period.

Simple average IRR

The simple arithmetic average of the returns of all funds regardless of their size.

Simple average 
$$IRR = \frac{\sum_{i=1}^{n} (IRR)_{i}}{n}$$

n: the number of funds, i: individual funds

Weighted average IRR

In obtaining an overall picture of the assets of a venture capital fund, it stands to reason that larger funds wield more impact than smaller funds. Therefore, the weighted average IRR is computed by placing weight on the individual funds according to their beginning-of-the-period size. As for fund size, we adopted total paid-in capital (cumulative contributions up till the time of survey).

Weighted average 
$$IRR = \frac{\sum_{i=1}^{n} (Total contributions)_{,i} (IRR)_{i}}{\sum_{i=1}^{n} (Total contributions)_{i}}$$

n: the number of funds, i: individual funds

Pooled IRR

This is an IRR obtained by taking cash flows since inception together with the residual value for all funds and aggregating them into a pool as if they were a single fund.

DPI: Distribution to Paid-in

This is a measure of the cumulative distributions returned to investors as a proportion of the cumulative paid in capital. If the ratio exceeds 1, returns investors received are larger than their investment.

DPI = (Cumulative distributions) / (Total paid-in capital)

TVPI: Total Value to Paid-in

This is a measure of total value which is the sum of the residual value (unrealized return on investment) and the distributions to date relative to invested capital. If the ratio exceeds 1, the current value of the fund exceeds the total paid-in capital.

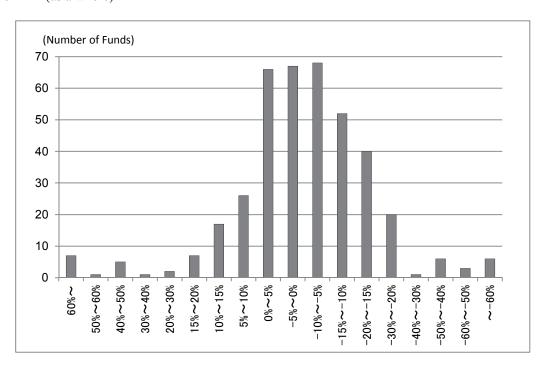
TVPI = (Cumulative distributions + Residual value) / (Total paid-in capital)

Weighted average TOPIX

The TOPIX (Tokyo Stock Price Index) is a free-floating adjusted Index of the total market value of all stocks traded on the first section of the Tokyo Stock Exchange. The index is a measure of the changes in aggregate market value of the stocks, using the closing total on 4 January 1968 as the base of the Index, with a starting value of 100. The weighted average TOPIX is computed by placing weight on the individual funds according to their beginning-of-the-period size.

## (1) Internal rate of return (IRR) on all funds

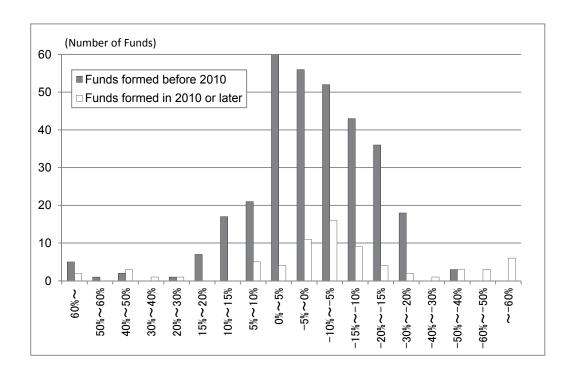
## 1. Distribution of IRR (as a whole)



IRR	Number of Funds
60%∼	7
50%~60%	1
40%~50%	5
30%~40%	1
20%~30%	2
15%~20%	7
10%~15%	17
5% <b>~</b> 10%	26
0% <b>~</b> 5%	66
-5% <b>~</b> 0%	67
-10% <b>~</b> -5%	68
-15% <b>~</b> -10%	52
-20% <b>~</b> -15%	40
-30% <b>~</b> -20%	20
-40% <b>~</b> -30%	1
-50% <b>~</b> -40%	6
-60% <b>~</b> -50%	3
~-60%	6
Total	395

#### 2. Distribution of IRR (by period of fund management)

The next chart shows the distributions of the internal rate of return (IRR) on individual funds classified by investment. All funds started in 2011 or later have been managed less than 5 years.



		Number of Funds			
	Total	Funds formed before 2010	Funds formed in 2010 or later		
60%∼	7	5	2		
50%~60%	1	1	0		
40%~50%	5	2	3		
30% <b>∼</b> 40%	1	0	1		
20%~30%	2	1	1		
15%~20%	7	7	0		
10%~15%	17	17	0		
5% <b>~</b> 10%	26	21	5		
0% <b>~</b> 5%	66	62	4		
-5% <b>~</b> 0%	67	56	11		
-10% <b>~</b> -5%	68	52	16		
-15% <b>~</b> -10%	52	43	9		
-20% <b>~</b> -15%	40	36	4		
-30% <b>~</b> -20%	20	18	2		
-40% <b>~</b> -30%	1	0	1		
-50% <b>~</b> -40%	6	3	3		
-60% <b>~</b> -50%	3	0	3		
~-60%	6	0	6		
Total	395	324	71		

# 3. IRR distribution by fund type

		Number of Funds	
IRR	Total	Limited Partnerships	Voluntary Partnerships
60%∼	7	3	3
50%~60%	1	1	0
40%~50%	5	4	0
30% <b>∼</b> 40%	1	1	0
20%~30%	2	2	0
15%~20%	7	3	3
10%~15%	17	4	11
5% <b>~</b> 10%	26	18	7
0%~5%	66	26	36
-5% <b>~</b> 0%	67	49	18
-10% <b>~</b> -5%	68	61	7
-15% <b>~</b> -10%	52	45	7
-20% <b>~</b> -15%	40	35	4
-30% <b>~</b> -20%	20	19	1
-40% <b>~</b> -30%	1	1	0
-50% <b>~</b> -40%	6	4	2
-60% <b>~</b> -50%	3	3	0
~-60%	6	6	0
Total	395	285	99

*Note:* Each range of IRR is "x% and over but less than xx%".

# 4. IRR distribution by focused stage

					Number of Funds				
IRR	Total	Seed	Early	Expansion	Later	Balanced	Buyout	Recap/ Turnaround	Not specified
60%∼	7	0	5	1	0	0	1	0	0
50%~60%	1	1	0	0	0	0	0	0	0
40%∼50%	5	0	3	0	0	1	0	0	1
30% ~ 40%	1	0	0	1	0	0	0	0	0
20%~30%	2	0	1	0	0	0	0	1	0
15%~20%	7	1	1	1	0	4	0	0	0
10% ~ 15%	17	0	3	0	0	12	1	0	1
5%~10%	25	3	4	1	0	14	0	0	3
0%~5%	62	1	12	2	0	32	3	0	12
-5% <b>~</b> 0%	66	1	13	2	1	36	1	2	10
-10% <b>~</b> -5%	67	2	27	1	0	25	2	3	7
-15% <b>~</b> -10%	49	3	23	5	1	11	0	0	6
-20% <b>~</b> -15%	40	3	15	2	0	15	1	0	4
-30% <b>~</b> -20%	20	0	10	1	1	8	0	0	0
-40% <b>~</b> -30%	1	1	0	0	0	0	0	0	0
-50% <b>~</b> -40%	5	0	0	2	0	0	0	0	3
-60% <b>~</b> -50%	2	0	0	0	0	0	0	1	1
~ -60%	6	1	0	0	0	2	0	0	3
Total	383	17	117	19	3	160	9	7	51

5. IRR distribution by focused industry

	Not specified	1	0	3	1	2	7	14	21	49	53	55	39	32	14	1	2	1	4	299
	Clean Technology	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	4
	Finance/Real Estate /Business Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	Media/ Entertainment/ Retailing/ Consumer Goods	0	0	0	0	0	0	0	2	0	0	1	0	1	0	0	0	0	0	4
	Industrial/Energy /Other	0	0	0	0	0	0	0	0	0	2	1	1	0	2	0	1	2	1	10
Number of Funds	Medical Device and Equip ment /Healthcare-related	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Number	Biotechnology/ Medicine	2	0	0	0	0	0	0	1	4	4	2	4	3	1	0	1	0	1	23
	Semi-conductors/ Electrical Machinery & Equipment	0	0	0	0	0	0	0	0	1	0	0	1	1		0	0	0	0	4
	Software	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
	Computers and Peripherals/ IT Services	1	1	0	0	0	0	0	1	7	1	1	1	7	1	0	0	0	0	11
	Telecommunication s /Networking and Equip ment	3	0	2	0	0	0	0	0	0	0	4	0	1	0	0	0	0	0	10
	Total	7	1	5	1	2	L	14	25	LS	19	99	48	40	20	1	5	3	9	369
	IRR	~%09	%09 <b>~</b> %05	40%~50%	$30\% \sim 40\%$	20%~30%	$15\% \sim 20\%$	$10\% \sim 15\%$	<i>5</i> % <b>~</b> 10%	°2~%0	%0 ~ 0%-	-10%~2%	-15%~-10%	-20%~-15%	-30%~-20%	-40%~-30%	-50%~-40%	%05-∼%09-	%09- ~	Total

Note: Each range of IRR is "x% and over but less than xx%".

# 6. IRR distribution by focused region

			Number of Funds		
IRR	Domestic Region	Overseas Region	Mainly Domestic	Mainly Overseas	Not specified
60%∼	0	3	3	0	1
50%~60%	1	0	0	0	0
40%~50%	1	1	2	0	1
30% <b>~</b> 40%	0	0	1	0	0
20%~30%	1	0	1	0	0
15%~20%	2	0	5	0	0
10%~15%	1	0	14	0	0
5% <b>~</b> 10%	3	0	17	2	3
0% <b>~</b> 5%	11	2	39	1	9
-5% <b>~</b> 0%	25	0	29	0	8
-10% <b>~</b> -5%	37	0	23	0	8
-15% <b>~</b> -10%	29	0	15	0	5
-20% <b>~</b> -15%	17	0	21	0	2
-30% <b>~</b> -20%	9	0	6	0	4
-40% <b>~</b> -30%	1	0	0	0	0
-50% <b>~</b> -40%	2	0	0	1	2
-60% <b>~</b> -50%	3	0	0	0	0
~-60%	4	0	0	0	2
Total	147	6	176	4	45

Domestic Region

Hokkaido, Tohoku, Kanto (excl. Tokyo), Tokyo,
Chubu, Kinki, Chugoku, Shikoku, Kyushu and Okinawa

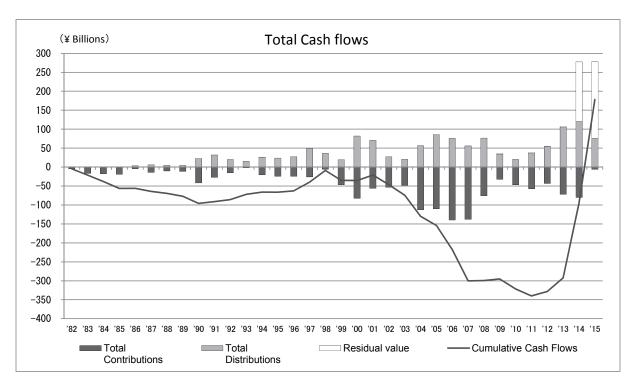
Overseas Region Asia-Pacific, Europe, North America

## (2) Cash flow and performance of all funds

The next table shows the cash flow for individual funds by vintage year, and the computed results of the distribution to paid-in ratio (DPI) and the total value to paid-in ratio (TVPI).

*Note:* For years 1986, 1993 and 1994, only one fund was under survey. To avoid disclosing the performance of individual funds, no data are shown.

Vintage Year	Number of Funds	DPI	TVPI
'82	2	3.13	3.13
'83	5	2.74	2.74
'84	4	2.68	2.68
'85	5	2.18	2.18
'86	1	-	-
'87	3	1.40	1.40
'88	2	1.01	1.01
'89	4	0.87	0.87
'90	4	1.04	1.04
'91	8	1.15	1.15
'92	4	1.33	1.33
'93	1	-	-
'94	1	-	-
'95	5	1.86	1.86
'96	7	1.10	1.10
'97	7	3.23	3.23
'98	4	1.14	1.14
'99	13	1.25	1.27
'00'	27	0.91	0.93
'01	21	0.73	0.75
'02	24	0.64	0.73
'03	16	0.91	0.96
'04	36	0.83	0.93
'05	45	0.43	0.59
'06	23	0.48	0.83
'07	22	0.70	1.20
'08	14	0.66	1.12
'09	5	0.21	0.72
'10	11	0.28	1.24
'11	14	0.41	1.32
'12	9	0.00	0.84
'13	27	0.08	1.03
'14	18	0.00	1.10
'15	3	0.00	0.97
Total	395	0.87	1.88



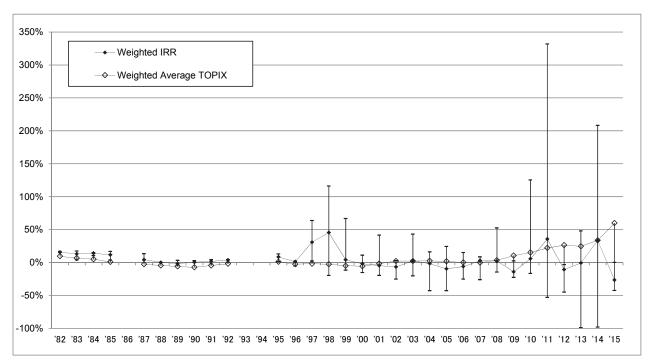
(Yen billions)

Vintage	Total	Total	Residual	Cumulative
Year	Contributions	Distributions	value	Cash Flows
'82	-4.4	0.0	0.0	-4.4
'83	-16.8	0.0	0.0	-21.2
'84	-17.3	0.0	0.0	-38.4
'85	-18.8	1.0	0.0	-56.2
'86	-3.7	3.8	0.0	-56.1
'87	-14.0	5.8	0.0	-64.3
'88	-10.3	4.9	0.0	-69.7
'89	-11.4	4.3	0.0	-76.8
'90	-41.7	22.8	0.0	-95.7
'91	-27.1	31.8	0.0	-91.1
'92	-14.6	19.8	0.0	-85.9
'93	-1.9	15.7	0.0	-72.1
'94	-20.4	26.4	0.0	-66.1
'95	-24.0	23.7	0.0	-66.4
'96	-24.0	27.5	0.0	-62.9
'97	-25.9	49.2	0.0	-39.6
'98	-5.4	36.2	0.0	-8.9
'99	-46.0	19.7	0.0	-35.1
'00'	-82.3	82.0	0.0	-35.5
'01	-56.0	70.5	0.0	-21.0
'02	-52.7	27.1	0.0	-46.6
'03	-48.2	20.7	0.0	-74.0
'04	-112.3	56.6	0.0	-129.8
'05	-110.1	85.8	0.0	-154.0
'06	-139.7	75.7	0.0	-217.9
'07	-138.0	55.8	0.0	-300.1
'08	-75.8	76.6	0.0	-299.3
'09	-32.1	34.1	2.3	-295.1
'10	-46.8	19.1	1.5	-321.3
'11	-56.9	35.9	2.5	-339.8
'12	-43.2	54.2	0.5	-328.2
'13	-71.5	104.7	2.6	-292.5
'14	-80.1	120.2	157.5	-95.0
'15	-5.5	76.4	202.3	178.2
Total	-1,479.0	1,288.1	369.2	

# 5. IRR by vintage year

Here, the capital weighted average IRR based on calculating IRR for each fund and the performance of the stock market (TOPIX) are compared.

\*For years 1986, 1993 and 1994, only one fund was under survey. To avoid disclosing the performance of individual funds, no data are shown.



Vintage Year	Number of Funds	Pooled IRR	Weighted IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	M edian	1/4 from the bottom	M inimum Value	Weighted Average TOPIX
'82	2	15.61%	15.59%	15.84%	1.29%	16.75%	16.29%	15.84%	15.38%	14.93%	9.46%
'83	5	13.83%	13.07%	8.76%	6.13%	17.16%	13.44%	4.92%	4.42%	3.84%	6.63%
'84	4	14.17%	14.06%	13.05%	2.00%	14.82%	14.40%	13.51%	12.16%	10.35%	4.93%
'85	5	10.91%	11.62%	9.81%	4.64%	16.76%	10.14%	9.20%	9.20%	3.72%	0.81%
'86	1	-	-	-	-	-	-	-	-	-	-
'87	3	4.23%	4.40%	6.80%	5.48%	13.12%	8.38%	3.64%	3.64%	3.64%	-2.64%
'88	2	0.10%	0.10%	0.10%	0.03%	0.12%	0.11%	0.10%	0.09%	0.08%	-4.49%
'89	4	-1.60%	-1.65%	-1.39%	3.51%	3.24%	0.39%	-2.34%	-4.12%	-4.12%	-5.97%
'90	4	0.50%	0.51%	0.69%	1.32%	2.51%	1.23%	0.29%	-0.25%	-0.33%	-7.32%
'91	8	2.04%	1.77%	0.84%	2.27%	4.31%	2.06%	1.35%	-0.92%	-2.30%	-4.48%
'92	4	4.03%	3.80%	3.17%	1.98%	4.40%	4.39%	4.02%	2.80%	0.25%	-1.91%
'93	1	-	-	-	-	-	-	-	-	-	-
'94	1	-	-	-	-	-	-	-	-	-	-
'95	5	9.13%	8.32%	8.66%	4.65%	12.89%	10.92%	10.90%	7.47%	1.11%	1.05%
'96	7	1.18%	1.16%	-0.69%	2.85%	2.01%	1.65%	0.06%	-2.40%	-5.38%	-2.61%
'97	7	30.71%	30.79%	15.18%	21.84%	63.65%	12.50%	6.22%	4.52%	2.34%	-1.79%
'98	4	3.11%	45.38%	25.02%	61.74%	116.02%	35.04%	1.98%	-8.05%	-19.91%	-2.68%
'99	13	5.10%	4.06%	3.15%	20.10%	66.73%	3.44%	0.18%	-9.16%	-11.98%	-4.93%
'00	27	-1.29%	-1.87%	-2.41%	6.97%	10.92%	1.01%	-2.16%	-8.74%	-15.33%	-5.64%
'01	21	-4.58%	-4.83%	-5.52%	12.72%	41.42%	-2.82%	-4.86%	-12.80%	-19.56%	-1.69%
'02	24	-4.86%	-6.66%	-10.94%	8.00%	2.63%	-6.53%	-11.33%	-16.06%	-25.47%	2.20%
'03	16	-1.00%	2.42%	-6.24%	14.15%	43.00%	-5.52%	-7.93%	-14.13%	-20.36%	2.19%
'04	36	-1.29%	-1.73%	-8.28%	12.10%	16.15%	-1.34%	-10.20%	-16.44%	-43.10%	2.49%
'05	45	-8.11%	-9.61%	-10.56%	11.83%	24.23%	-4.18%	-9.49%	-17.00%	-43.02%	1.73%
'06	23	-2.94%	-6.16%	-10.66%	9.35%	14.85%	-4.89%	-10.75%	-16.44%	-25.52%	0.03%
'07	22	3.59%	2.88%	-5.70%	9.73%	8.47%	2.04%	-8.63%	-11.48%	-26.44%	-0.20%
'08	14	2.72%	2.22%	1.05%	16.17%	52.67%	2.93%	-3.68%	-6.74%	-14.62%	3.40%
'09	5	-11.17%	-14.20%	-8.21%	11.44%	2.34%	1.11%	-3.83%	-17.88%	-22.80%	10.46%
'10	11	8.01%	5.75%	9.48%	40.05%	125.29%	10.84%	-2.18%	-9.90%	-16.81%	15.19%
'11	14	16.78%	35.58%	20.01%	92.00%	331.67%	5.04%	-5.56%	-6.85%	-52.98%	21.99%
'12	9	-10.18%	-10.73%	-11.42%	12.98%	-3.37%	-5.32%	-7.48%	-11.15%	-45.10%	26.41%
'13	27	2.28%	-0.79%	-13.24%	32.85%	47.89%	0.32%	-7.77%	-20.30%	-99.01%	24.54%
'14	18	16.98%	33.31%	-8.85%	63.53%	208.05%	-3.03%	-7.23%	-14.65%	-98.20%	33.74%
'15	3	-22.34%	-26.66%	-27.05%	23.51%	0.00%	-19.30%	-38.60%	-40.57%	-42.54%	59.86%
Total	395	16.04%	1.79%	-3.69%	26.03%	331.67%	2.29%	-4.88%	-11.99%	-99.01%	2.64%

# Management situation by vintage year

# (1) Funds starting in 1982

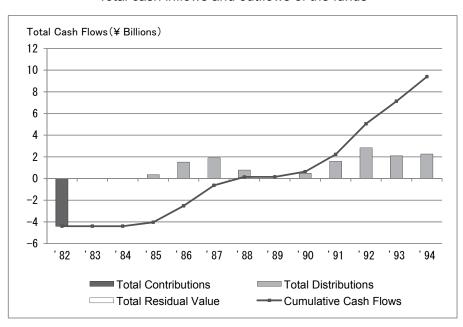
	Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds	Pooled IKK	Average IRR	Average IKK	Deviation	Value	the top	Weulan	the bottom	Value	DPI	IVEI
Funds formed in 1982	2	15.61%	15.59%	15.84%	1.29%	16.75%	16.29%	15.84%	15.38%	14.93%	3.13	3.13
Liquidated	2	15.61%	15.59%	15.84%	1.29%							
Existing	0	NA	NA	NA	NA							

Total Contributions	¥ 4.4 billion
Average Contributions	¥ 2.2 billion
•	

Average Term 11.8 years

#### Cash Flows

## Total cash inflows and outflows of the funds



	Limited	Volantary	Foreign funds		Ī							
	Partnership	Partnerships	_	Unknown								
Fund type	0	2	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	2	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	2		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	0						
	Telecommuni cations/Netw orking and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknowr
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	2	0

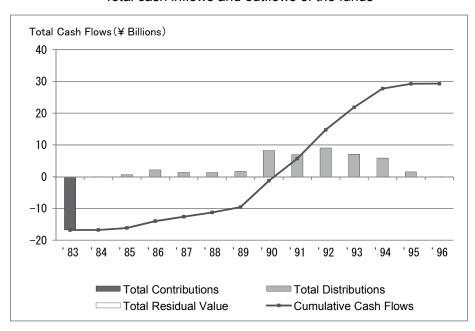
## (2) Funds starting in 1983

ĺ		Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
		Funds		Average IRR	/ wordgo ii ii i	Deviation	Value	the top	modian	the bottom	Value		
	Funds formed in 1983	5	13.83%	13.07%	8.76%	6.13%	17.16%	13.44%	4.92%	4.42%	3.84%	2.74	2.74
	Liquidated	5	13.83%	13.07%	8.76%	6.13%							
- [	Entertie a	_	814	NIA	NIA.	N.I.A.	1						

Total Contributions	¥ 16.8 billion					
Average Contributions	¥ 3.4 billion					
Average Term	12 years					

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	5	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	1	0	0	1	1	0	2	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	5		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	5	0

## (3) Funds starting in 1984

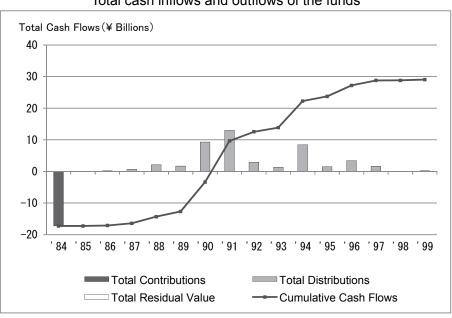
ſ		Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
		Funds		Average IRR		Deviation	Value	the top	Wedian	the bottom	Value		
ſ	Funds formed in 1984	4	14.17%	14.06%	13.05%	2.00%	14.82%	14.40%	13.51%	12.16%	10.35%	2.68	2.68
f	Liquidated	4	14.17%	14.06%	13.05%	2.00%							
1		_					1						

Total Contributions	
Average Contributions	¥4.3 billion

Average Term 14.1 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	3	1	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	3	0	0	1	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	4		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	4	0

## (4) Funds starting in 1985

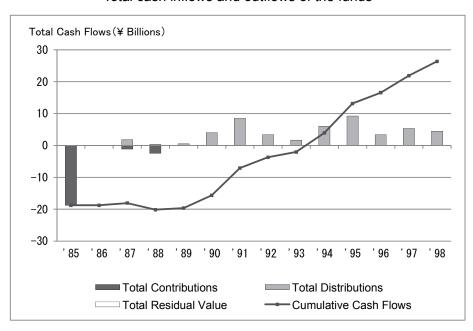
	Number of	Pooled IRR	R Weighted Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI	
	Funds		Average IRR	Average IRR	Deviation	Value	the top	ivieulari	the bottom	Value	DPI	IVFI
Funds formed in 1985	5	10.91%	11.62%	9.81%	4.64%	16.76%	10.14%	9.20%	9.20%	3.72%	2.18	2.18
Liquidated	5	10.91%	11.62%	9.81%	4.64%							
						1						

Total Contributions	
Average Contributions	¥ 4.5 billion

Average Term 12.2 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	4	1	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	4	0	0	1	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	5		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	5	0

## (5) Funds starting in 1986

	Number of	Pooled IRR	per of Pooled IRR Weighted Average IRR Standard Maximum 1/4	1/4 from	Median	1/4 from	Minimum	DPI	TVPI			
	Funds		Average IRR	Average IRR	Deviation	Value	the top	iviediari	the bottom	Value	DPI	IVFI
Funds formed in 1986	1	-	-	-	-	-	-	-	-	-	-	-
Liquidated	1	-	-	-	-							
Evicting	^											

Total Contributions	¥3.7 billion
Average Contributions	¥3.7 billion
Average Term	12 years

#### Cash Flows

Only one fund was under survey.

No data are shown to avoid disclosing the performance of individual funds.

	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	1	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	1	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	0		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	1						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	0	1

#### (6) Funds starting in 1987

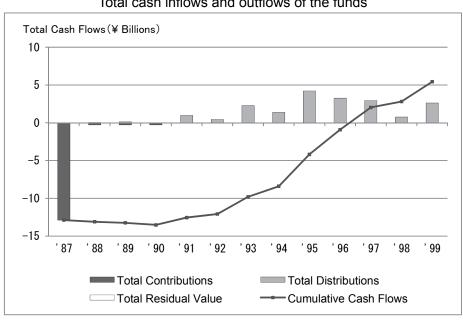
	Number of	Pooled IRR	Weighted	Augusta IDD	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds		Average IRR	Average IRR	Deviation	Value	the top		the bottom	Value	DPI	IVFI
Funds formed in 1987	3	4.23%	4.40%	6.80%	5.48%	13.12%	8.38%	3.64%	3.64%	3.64%	1.40	1.40
Liquidated	3	4.23%	4.40%	6.80%	5.48%							
	_					1						

Total Contributions	
Average Contributions	¥ 4.6 billion

#### Average Term 12.1 years

#### Cash Flows

## Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	3	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	3	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	2		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	1						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	2	1

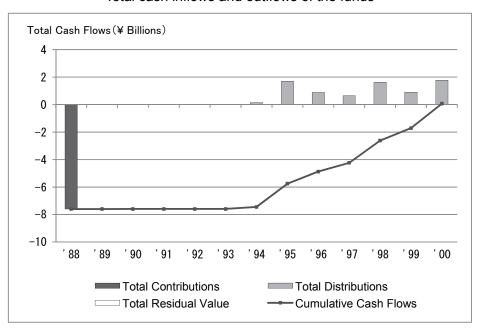
#### (7) Funds starting in 1988

	Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	l Median	1/4 from	Minimum	DPI	TVPI
	Funds	Pooled IRR	Average IRR	Average IRR	Deviation	Value	the top		the bottom	Value	DPI	IVFI
Funds formed in 1988	2	0.10%	0.10%	0.10%	0.03%	0.12%	0.11%	0.10%	0.09%	0.08%	1.01	1.01
Liquidated	2	0.10%	0.10%	0.10%	0.03%							
F : .: .	•					1						

Total Contributions	¥ 7.6 billion
Average Contributions	¥3.8 billion
Accessed Towns	40
Average Term	12 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	2	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	2	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	2		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	2	0

#### (8) Funds starting in 1989

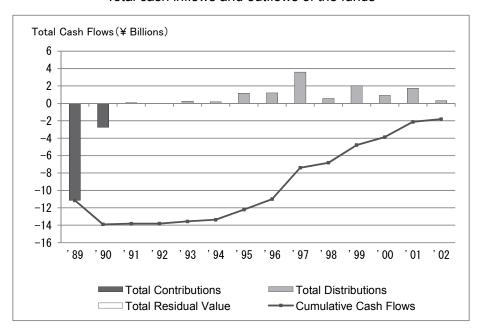
	Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds		Average IRR	Average IKK	Deviation	Value	the top		the bottom	Value	DFI	IVEI
Funds formed in 1989	4	-1.60%	-1.65%	-1.39%	3.51%	3.24%	0.39%	-2.34%	-4.12%	-4.12%	0.87	0.87
Liquidated	4	-1.60%	-1.65%	-1.39%	3.51%							
						1						

Total Contributions	
Average Contributions	¥ 3.5 billion

#### Average Term 11.9 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	4	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	3	0	0	1	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	2		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	2						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	2	2

#### (9) Funds starting in 1990

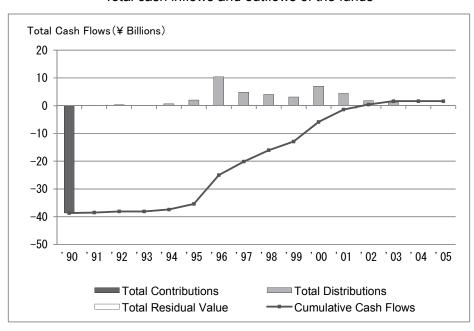
ſ		Number of	Pooled IRR	Weighted	Avoraga IBB	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
		Funds	Pooled IRK	Average IRR	Average IRR	Deviation	Value	the top		the bottom	Value	DFI	IVE
ſ	Funds formed in 1990	4	0.50%	0.51%	0.69%	1.32%	2.51%	1.23%	0.29%	-0.25%	-0.33%	1.04	1.04
ſ	Liquidated	4	0.50%	0.51%	0.69%	1.32%							
г	F : .: .	•					1						

Total Contributions	¥38.7 billion
Average Contributions	¥9.7 billion

Average Term 12.7 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	4	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	4	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	3		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	1						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	3	1

#### (10) Funds starting in 1991

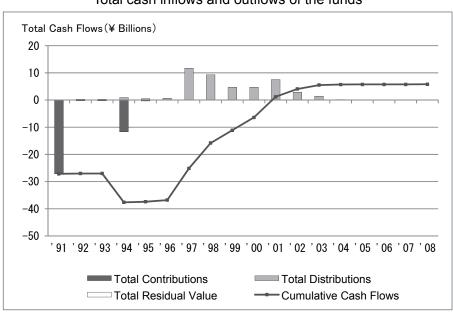
	Number of	Pooled IRR	Weighted	Augrada IDD	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds	Pooled IRR	Average IRR	Average IRR	Deviation	Value	the top	Wieulan	the bottom	Value	DFI	IVFI
Funds formed in 1991	8	2.04%	1.77%	0.84%	2.27%	4.31%	2.06%	1.35%	-0.92%	-2.30%	1.15	1.15
Liquidated	8	2.04%	1.77%	0.84%	2.27%							
Existing	0	NA	NA	NA	NA							

Total Contributions	
Average Contributions	¥ 4.9 billion

Average Term 12.8 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	8	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	7	0	0	1	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	5		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	3						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	4	4

#### (11) Funds starting in 1992

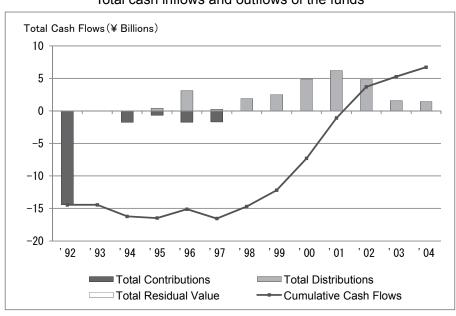
	Number of	Pooled IRR	Weighted	Augrada IDD	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds	Pooled IRR	Average IRR	Average IRR	Deviation	Value	the top		the bottom	Value	DPI	IVFI
Funds formed in 1992	4	4.03%	3.80%	3.17%	1.98%	4.40%	4.39%	4.02%	2.80%	0.25%	1.33	1.33
Liquidated	4	4.03%	3.80%	3.17%	1.98%							
						1						

Total Contributions	
Average Contributions	¥5.1 billion

Average Term 12.1 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	3	1	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	4	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	4		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	4	0

## (12) Funds starting in 1993

	Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Funds formed in 1993	1	-	-	-	-	-	-	-	-	-	-	-
Liquidated	1	-	-	-	-							
Entertie at	^					1						

Total Contributions	¥ 1.7 billion
Average Contributions	¥ 1.7 billion
Average Term	11.4 years

#### Cash Flows

Only one fund was under survey.

No data are shown to avoid disclosing the performance of individual funds.

	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	1	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown	•		
Investment focus by stage	0	0	0	0	1	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	0		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	0	1						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	0	1

## (13) Funds starting in 1994

	Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds	1 ooled littit	Average IRR	Average intr	Deviation	Value	the top	Wicdian	the bottom	Value	Diii	
Funds formed in 1994	1	-	-	-	-	-	-	-	-	-	-	-
Liquidated	1	-	-	-	-							
Evicting	0											

Total Contributions	¥ 7.0 billion
Average Contributions	¥ 7.0 billion
Average Term	12.1 years

#### Cash Flows

Only one fund was under survey.

No data are shown to avoid disclosing the performance of individual funds.

	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	1	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	1	0	0	0	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	0		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	1	0	0	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	1	0	0	0	0	0	0	0	0	0	0	0

#### (14) Funds starting in 1995

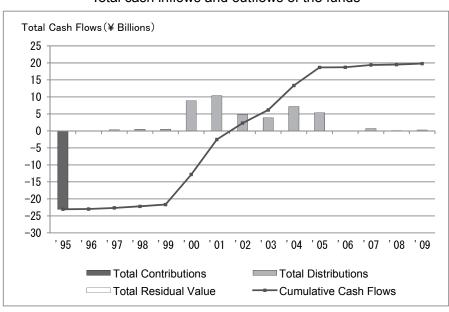
	Number of	Pooled IRR	Pooled IRR   Average IRR   '   Median	1/4 from	Minimum	DPI	TVPI					
	Funds		Average IRR	Average IRR	Deviation	Value	the top	Wedian	the bottom	Value	DPI	IVEI
Funds formed in 1995	5	9.13%	8.32%	8.66%	4.65%	12.89%	10.92%	10.90%	7.47%	1.11%	1.86	1.86
Liquidated	5	9.13%	8.32%	8.66%	4.65%							
Existing	0	NA	NA	NA	NA							

Total Contributions	
Average Contributions	¥ 4.6 billion

Average Term 12.6 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	5	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	0	0	0	4	0	0	1	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	0	0	0	4		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	1	0	0	0	0	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	1	0	0	0	0	0	0	4	0

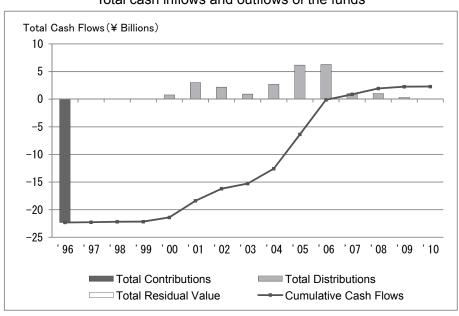
#### (15) Funds starting in 1996

	Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Funds formed in 1996	7	1.18%	1.16%	-0.69%	2.85%	2.01%	1.65%	0.06%	-2.40%	-5.38%	1.10	1.10
Liquidated	7	1.18%	1.16%	-0.69%	2.85%							
						1						

¥ 22.3 billion
¥3.2 billion
12 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	7	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	2	0	0	2	0	0	2	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	1	0	1	0	1	1		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	3	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	7	0

#### (16) Funds starting in 1997

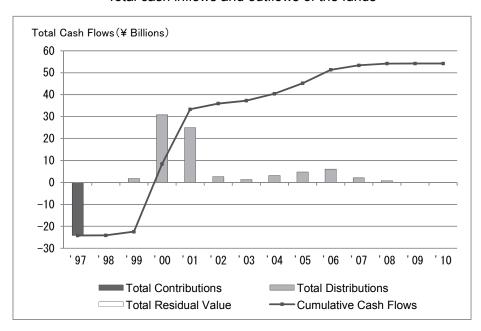
Г		Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
		Funds	Pooled IRK	Average IRR	Average IKK	Deviation	Value the top	Wedian	the bottom	Value	DFI	IVEI	
F	unds formed in 1997	7	30.71%	30.79%	15.18%	21.84%	63.65%	12.50%	6.22%	4.52%	2.34%	3.23	3.23
Γ	Liquidated	7	30.71%	30.79%	15.18%	21.84%			•		_		
	Endadin a	_	NIA.	N/A	NIA	NIA.	1						

Total Contributions	
Average Contributions	¥ 3.5 billion

#### Average Term 11.6 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	0	6	1	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	3	0	0	4	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	1	0	1	0	0	0	0	0	0	3		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	1	0	1	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	1	0	0	0	0	0	0	0	0	0	6	0

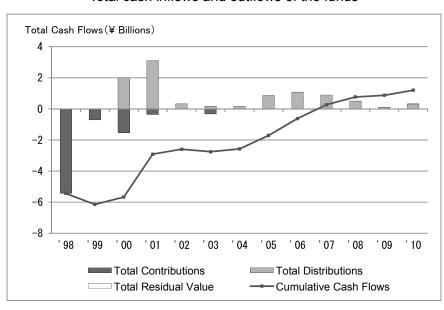
## (17) Funds starting in 1998

ſ		Number of	Pooled IRR	Weighted	Avoraga IBB	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
		Funds	Pooled IRK	Average IRR	Average IRR De	Deviation	Value	the top	Median	the bottom	Value	DPI	IVFI
ſ	Funds formed in 1998	4	3.11%	45.38%	25.02%	61.74%	116.02%	35.04%	1.98%	-8.05%	-19.91%	1.14	1.14
ſ	Liquidated	4	3.11%	45.38%	25.02%	61.74%							
г	F : .: .	•					1						

Total Contributions	¥8.4 billion
Average Contributions	¥ 2.1 billion
Average Term	11 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



Fund type	Limited Partnerships	Volantary Partnerships 2	Foreign funds /Other 1	Unknown 0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	2	1	0	1	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	2	1	0	0	0		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	1	0	0	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	1	0	0	0	0	0	0	1	0	0	2	0

#### (18) Funds starting in 1999

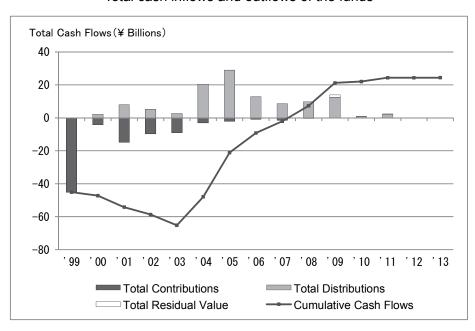
	Number of	Pooled IRR	Weighted	Augrada IDD	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds	Pooled IRR	Average IRR Average IR	Average IRR	Deviation	Value	the top	iviedian	the bottom	Value	DFI	IVFI
Funds formed in 1999	13	5.10%	4.06%	3.15%	20.10%	66.73%	3.44%	0.18%	-9.16%	-11.98%	1.25	1.27
Liquidated	13	5.10%	4.06%	3.15%	20.10%							
						i e						

Total Contributions	¥91.1 billior
Average Contributions	¥ 7.0 billion

#### Average Term 11.6 years

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	5	7	1	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	5	1	0	3	1	0	3	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	2	0	0	1	0	0	0	7		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	3	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	1	0	0	0	0	0	12	0

#### (19) Funds starting in 2000

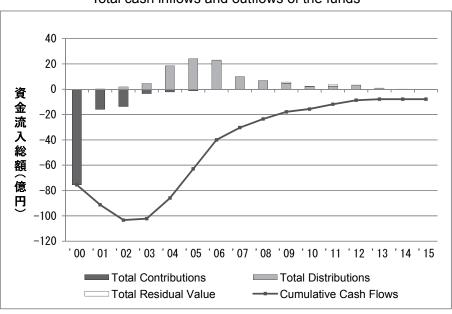
	Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds	Fooled INN	Average IRR	Average IIIII	Deviation	Value	the top	Median	the bottom	Value	DFI	IVFI
Funds formed in 2000	27	-1.29%	-1.87%	-2.41%	6.97%	10.92%	1.01%	-2.16%	-8.74%	-15.33%	0.91	0.93
Liquidated	26	-1.33%	-1.92%	-2.59%	7.05%							
Evipting	1					1						

Total Contributions	¥ 112.3 billion
Average Contributions	¥ 4.2 billion

Average Term 11.6 years (From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	19	8	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	10	1	0	11	0	0	3	1			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	1	0	0	1	0	1	1	0	0	16		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	1	5	1						
	Telecommunicat ions/Networking and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	3	1	1	0	2	0	0	1	0	0	18	1

#### (20) Funds starting in 2001

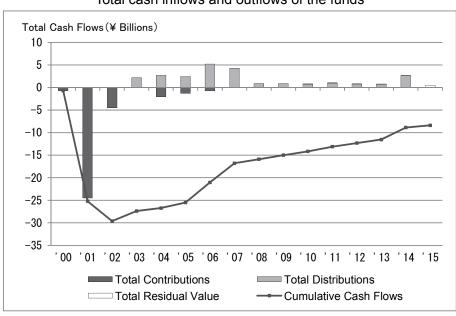
	Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Funds formed in 2001	21	-4.58%	-4.83%	-5.52%	12.72%	41.42%	-2.82%	-4.86%	-12.80%	-19.56%	0.73	0.75
Liquidated	19	-4.67%	-4.89%	-5.65%	13.40%					•		•
Evicting	2	4 08%	-4.20%	1 25%	0.67%	Ī						

Total Contributions	¥33.8 billion
Average Contributions	¥ 1.6 billion

Average Term	10.2 years	(From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	17	4	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	11	2	0	6	0	0	1	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	1	2	1	4	0	0	2	9		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	1	1						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	2	0	0	0	0	1	18	0

#### (21) Funds starting in 2002

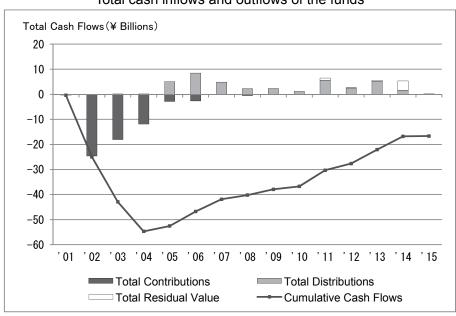
	Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds	1 oolea iitit	Average IRR	Average min	Deviation	Value	the top	Wicalan	the bottom	Value	511	
Funds formed in 2002	24	-4.86%	-6.66%	-10.94%	8.00%	2.63%	-6.53%	-11.33%	-16.06%	-25.47%	0.64	0.73
Liquidated	22	-4.76%	-6.55%	-10.11%	7.81%							
Friedland.	0	40.55%	40.000/	00.45%	0.740/	ĭ						

Total Contributions	¥61.1 billion
Average Contributions	¥ 2.5 billion

Average Term 10.7 years (From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	21	2	0	1								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	2	9	2	0	6	0	0	2	3			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	1	1	0	1	1	4	2	0	1	10		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	1	2						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	0	0	0	0	20	4

#### (22) Funds starting in 2003

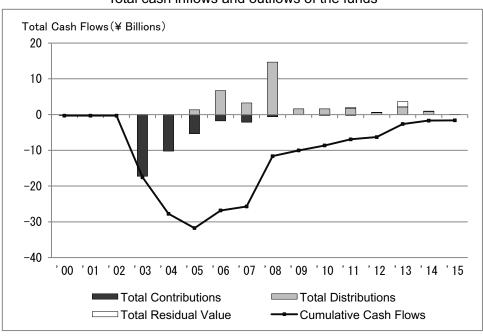
	Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Funds formed in 2003	16	-1.00%	2.42%	-6.24%	14.15%	43.00%	-5.52%	-7.93%	-14.13%	-20.36%	0.91	0.96
Liquidated	13	-6.19%	-5.70%	-8.19%	4.41%							
Endastin a	_	44 500/	40.400/	0.000/	25 200/	Ī						

Total Contributions	¥38.0 billion
Average Contributions	¥ 2.4 billion

Average Term 10.4 years (From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



Fund type	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
					1							
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	6	0	0	6	0	1	2	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	1	1	0	2	2	0	0	2	5		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	1	0	2	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	1	0	0	0	1	0	0	0	0	0	14	0

#### (23) Funds starting in 2004

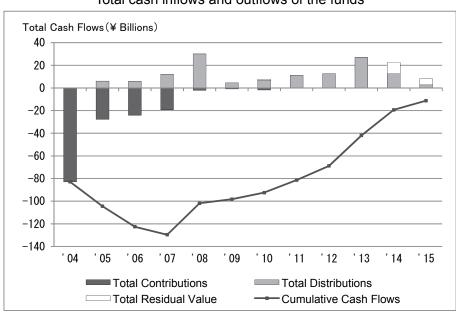
	Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Funds formed in 2004		-1.29%	-1.73%	-8.28%	12.10%	16.15%	-1.34%	-10.20%	-16.44%	-43.10%	0.83	0.93
Liquidated	19	-1.88%	-0.92%	-12.74%	10.26%							
Evicting	17	1.02%	-2.38%	3 30%	12 33%	Ī						

Total Contributions	¥ 158.6 billion
Average Contributions	¥ 4.4 billion

Average Term   9.9 years   (From inception to either dissolution date or the end of May 2015, whichever comes first)		Average Term	9.9 years	(From inception to either dissolution date or the end of May 2015, whichever comes first)
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#### Cash Flows

## Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	31	4	1	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	2	16	3	0	11	2	0	0	2			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	1	1	4	2	2	2	0	2	2	14		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	1	0	3	2						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	1	4	1	1	1	0	0	26	2

#### (24) Funds starting in 2005

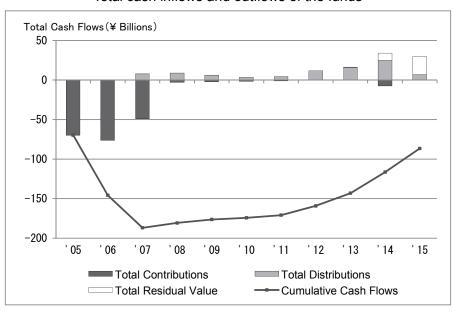
	Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Funds formed in 2005	45	-8.11%	-9.61%	-10.56%	11.83%	24.23%	-4.18%	-9.49%	-17.00%	-43.02%	0.43	0.59
Liquidated	8	-13.30%	-15.72%	-10.93%	20.55%				•			
Endantin a	27	7.050/	0.700/	40.400/	0.420/	1						

l	Total Contributions	¥ 208.9 billion
	Average Contributions	¥ 4.6 billion

Average Term 9.3 years (From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	42	3	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	2	14	0	0	19	1	1	6	2			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	1	1	2	3	2	5	0	1	3	21		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	1	2	3						
	Telecommunica tions/Networkin g and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	1	0	1	6	0	0	0	1	0	32	4

#### (25) Funds starting in 2006

		Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Ļ										the bottom			
l	Funds formed in 2006	23	-2.94%	-6.16%	-10.66%	9.35%	14.85%	-4.89%	-10.75%	-16.44%	-25.52%	0.48	0.83
	Liquidated	3	-21.90%	-21.95%	-21.18%	3.14%							
П	E. de Alice of	00	0.000/	4.0.40/	0.000/	0.000	Ī						

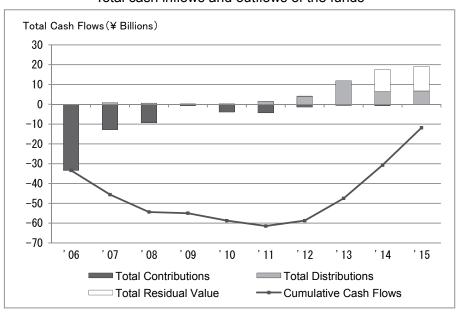
Total Contributions	¥67.7 billion
Average Contributions	¥ 2.9 billion

	0.0
Average Term	8.6 years

<sup>(</sup>From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	20	1	2	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	9	2	0	7	0	0	4	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	2	2	1	1	2	1	1	0	1	9		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	3	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	2	1	0	0	0	0	2	0	0	1	17	0

#### (26) Funds starting in 2007

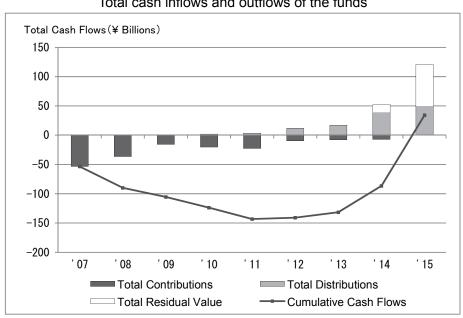
	Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Funds formed in 2007	22	3.59%	2.88%	-5.70%	9.73%	8.47%	2.04%	-8.63%	-11.48%	-26.44%	0.70	1.20
Liquidated	1	-	-	-	-							
	0.1	0.000/	0.000/	E 0.00/	0.040/							

Total Contributions	
Average Contributions	¥ 7.9 billion
-	

7.9 years (From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	19	3	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	8	0	1	9	1	0	3	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	1	1	1	1	1	1	0	1	1	9		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	5	0						
	Telecommunica tions/Networkin g and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	1	0	0	0	0	0	0	0	1	20	0

## (27) Funds starting in 2008

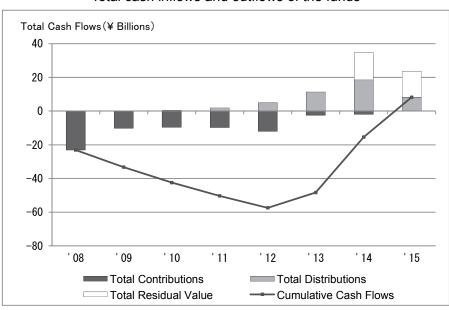
ſ		Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
L		Funds		Average IRR		Deviation	Value	the top		the bottom	Value		
	Funds formed in 2008	14	2.72%	2.22%	1.05%	16.17%	52.67%	2.93%	-3.68%	-6.74%	-14.62%	0.66	1.12
ſ	Liquidated	0	NA	NA	NA	NA			•		_	•	_
Г	Endowskin of	4.4	0.700/	0.000/	4.050/	40 470/	ĭ						

Total Contributions	¥ 68.8 billion
Average Contributions	¥4.9 billion

Average Term	7 years	(From inception to either dissolution date or the end of May 2015, whichever comes first)
Average renni	1 years	(From indeption to cities dissolution date of the end of May 2015, Whichever comes hist)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	14	0	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	2	2	0	6	0	0	3	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	1	0	1	2	0	2	6		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	2	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	1	1	0	0	0	1	0	0	0	11	0

## (28) Funds starting in 2009

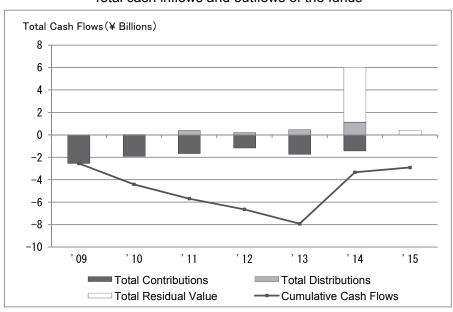
	Number of	Pooled IRR	Weighted	Averege IDD	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds	Pooled IRR	Average IRR	Average IRR	Deviation	Value	the top	Wedian	the bottom	Value	DFI	IVFI
Funds formed in 2009	5	-11.17%	-14.20%	-8.21%	11.44%	2.34%	1.11%	-3.83%	-17.88%	-22.80%	0.21	0.72
Liquidated	0	NA	NA	NA	NA							
Evicting	-	11 170/	1.4.200/	0.210/	11 ///0/							

Total Contributions	¥ 10.4 billion
Average Contributions	¥2.1 billion

Average Term	5.9 years	(From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	5	0	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	1	0	0	1	0	1	0	1			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	1	0	0	0	1	0	1	1		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	1	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	1	0	0	0	0	0	0	0	0	3	1

## (29) Funds starting in 2010

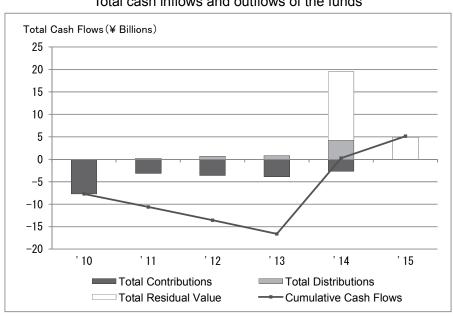
	Number of	Pooled IRR	Weighted	Averege IDD	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds	Pooled IRR	Average IRR	Average IRR	Deviation	Value	the top	Wedian	the bottom	Value	DFI	IVFI
Funds formed in 2010	11	8.01%	5.75%	9.48%	40.05%	125.29%	10.84%	-2.18%	-9.90%	-16.81%	0.28	1.24
Liquidated	1	-	-	-	-							
Evicting	10	9 000/	6 020/	12.03%	/11 26%	Ī						

	¥21.0 billion
Average Contributions	¥ 1.9 billion

		_
Average Term	5 years	(From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	8	3	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	0	1	1	0	6	0	0	2	1			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	1	1	0	1	6		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	1	1	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknowr
Investment focus by industry	0	1	0	0	1	0	0	0	0	0	7	2

## (30) Funds starting in 2011

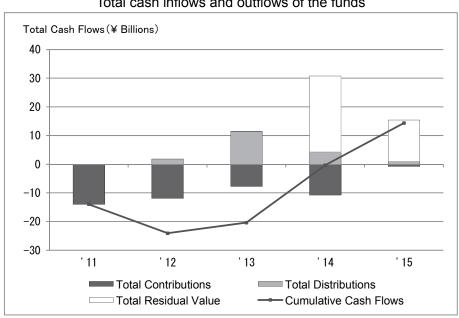
	Number of	Pooled IRR	Weighted	Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds	Fooled IIII	Average IRR	Average IIIII	Deviation	Value	the top	Wicdian	the bottom	Value	Dil	1 7 1 1
Funds formed in 2011	14	16.78%	35.58%	20.01%	92.00%	331.67%	5.04%	-5.56%	-6.85%	-52.98%	0.41	1.32
Liquidated	0	NA	NA	NA	NA							
Endowskin of	4.4	4.0.700/	25 500/	00.040/	00.000/	T						

Total Contributions	¥45.1 billion
Average Contributions	¥3.2 billion

Average Term 3.8 years (From inception to either dissolution date or the end of May 2015, whichever comes first)		Average Term	3.8 years	(From inception to either dissolution date or the end of May 2015, whichever comes first)
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#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	12	2	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	2	1	0	3	2	2	3	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	2	2	1	0	2	1	0	0	4		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	1	1	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	1	1	0	1	1	0	0	1	0	1	8	0

## (31) Funds starting in 2012

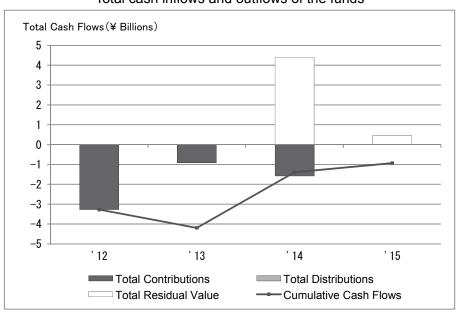
	Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Funds formed in 2012	9	-10.18%	-10.73%	-11.42%	12.98%	-3.37%	-5.32%	-7.48%	-11.15%	-45.10%	0.00	0.84
Liquidated	0	NA	NA	NA	NA							
Evicting	۵	10 19%	10.72%	11 /12%	12 98%	Ī						

Total Contributions	¥ 5.8 billion
Average Contributions	¥ 0.6 billion

		_
Average Term	3 years	(From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	9	0	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	2	0	1	3	0	0	2	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	2	0	0	0	0	2	0	2	2		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	1	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	0	0	1	0	0	0	8	0

## (32) Funds starting in 2013

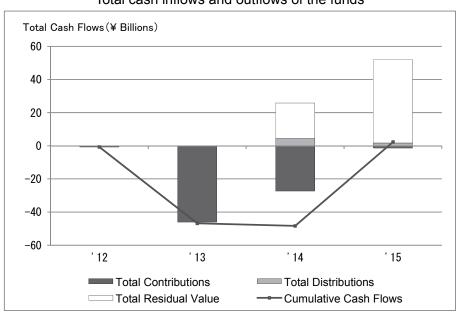
	Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Funds formed in 2013	27	2.28%	-0.79%	-13.24%	32.85%	47.89%	0.32%	-7.77%	-20.30%	-99.01%	0.08	1.03
Liquidated	1	-	-	-	-							
Endowskin of	00	4.050/	4 200/	45 400/	24 400/	7						

Total Contributions	¥ 75.5 billion
Average Contributions	¥ 2.8 billion

		_
Average Term	2 vears	(From incention to either dissolution date or the end of May 2015, whichever of

#### Cash Flows

#### Total cash inflows and outflows of the funds



Fund type	Limited Partnerships 27	Volantary Partnerships 0	Foreign funds /Other	Unknown 0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	4	1	1	11	1	2	4	2			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	2	0	2	0	0	3	1	5	10		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	4	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	2	0	0	1	0	3	0	0	0	20	1

## (33) Funds starting in 2014

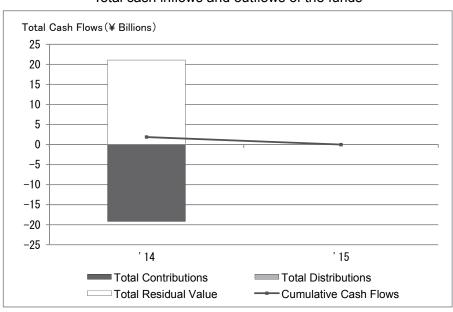
	Number of Funds	Pooled IRR	Weighted Average IRR	Average IRR	Standard Deviation	Maximum Value	1/4 from the top	Median	1/4 from the bottom	Minimum Value	DPI	TVPI
Funds formed in 2014	18	16.98%	33.31%	-8.85%	63.53%	208.05%	-3.03%	-7.23%	-14.65%	-98.20%	0.00	1.10
Liquidated	0	NA	NA	NA	NA							
Evicting	10	16 98%	22 21%	9 95%	62 52%	7						

Total Contributions	¥ 19.2 billion
Average Contributions	¥ 1.1 billion

Average Term	0.9 years	(From inception to either dissolution date or the end of May 2015, whichever comes first)
Average reini	0.5 years	(1 form inception to citate dissolution date of the end of May 2010, whichever comes mist)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	18	0	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown	·		
Investment focus by stage	0	7	1	0	6	0	0	4	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	1	1	0	0	1	4	1	0	1	4		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	5	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	1	0	0	2	0	2	0	0	0	12	1

#### (34) Funds starting in 2015

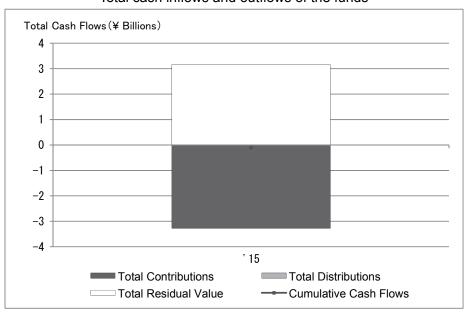
	Number of	Pooled IRR	Weighted	I Average IRR	Standard	Maximum	1/4 from	Median	1/4 from	Minimum	DPI	TVPI
	Funds		Average IRR		Deviation	Value	the top		the bottom	Value		
Funds formed in 2015	3	-22.34%	-26.66%	-27.05%	23.51%	0.00%	-19.30%	-38.60%	-40.57%	-42.54%	0.00	0.97
Liquidated	0	NA	NA	NA	NA							
Evicting	2	-22 3/1%	26.66%	27.05%	22 51%	Ī						

Total Contributions	¥ 3.3 billion
Average Contributions	¥ 1.1 billion

Average Term 0.2 years (From inception to either dissolution date or the end of May 2015, whichever comes first)

#### Cash Flows

#### Total cash inflows and outflows of the funds



	Limited Partnerships	Volantary Partnerships	Foreign funds /Other	Unknown								
Fund type	3	0	0	0								
	Seed-stage	Early-stage	Expansion -stage	Later-stage	Balanced	Buyout	Recap/ Turnaround	Not Specified	Unknown			
Investment focus by stage	1	1	1	0	0	0	0	0	0			
	Hokkaido	Tohoku	Kanto (excl. Tokyo)	Tokyo	Chubu	Kinki	Chugoku	Shikoku	Kyushu and Okinawa	Mainly domestic		
Investment focus by region	0	0	0	0	0	0	1	0	0	1		
	Asia-Pacific	Europe	North America	Mainly Overseas	Not Specified	Unknown						
Investment focus by region	0	0	0	0	1	0						
	Telecommunic ations/Networ king and Equipment	Computers and Peripherals /IT services	Software	Semi- conductors/ Electrical machinery & equipment	Biotechnology /Medicine	Medical Device and Equipment/ Healthcare- related	Industrial /Energy /Other	Media/ Entertainment/ Retailing/ Customer Goods	Finance/ Real Estate/ Business Services	Clean Technology	Not specified	Unknown
Investment focus by industry	0	0	0	0	2	0	0	0	0	0	1	0

#### List of venture capital firms responded to the survey (106 in total)

#### List of VC firms

Agribusiness Investment & Consultation Co.Ltd.

AKINAISOUKEN Co., Ltd. Ant Capital Partners Co., Ltd. Beyond Next Ventures Inc.

Biofrontier Partners, Inc.

Bio-Sight Capital Inc.
CHIBAGIN CAPITAL CO.,LTD.
Chushin Venture Capital co,Ltd
CITIC Capital Partners Japan Ltd
CyberAgentventures, Inc.

Daiwa Corporate Investment Co., Ltd.

DBC Capital Co., Ltd.
DCI Partners Co., Ltd.
DEFTA Capital,Inc.
Dentsu Digital Holdings Inc.

DOGAN, Inc.

Energy & Environment Investment, Inc.

Entrepia Japan

Fast Track Initiative, Inc. Femto Growth Capital LLP

FFG Business Consulting Co., Ltd.

FinTech Global Incorporated

Future Venture Capital Co., Ltd. GBI Capital Inc.

Global Brain Corporation
Global Venture Capital Inc.
Globis Capital Partners & Co.

GREE Ventures, Inc.

GUNGIN LEASING CO.,LTD.

Hack Ventures, Inc. Hamashin Lease, Co.,Ltd.

Hibishin Capital Co., Ltd. HIGIN CAPITAL Co.,Ltd.

Hiroshima Innovation Network Inc. Hiroshima Venture Capital Co.,Ltd.

Hokkaido Venture Capital Inc. Hokuhoku Capital

Incubate Fund
INNOTECH CORPORATION

Innovation Network Corporation of Japan

INSPiRE Corporation

Innovation Engine, Inc.

INTEC IT Capital,Inc.
Integral Corporation

ITOCHU Technology Ventures,Inc. JAFCO Co., Ltd.

Japan Asia Investment Co., Ltd. K&P Partners Co., Ltd.

KSP,inc.

Kyoritsu Capital Co., Ltd.

Kyushu Venture Partners Co., Ltd.

LINE Ventures Corporation MBL Venture Capital Co., Ltd.

M edVenture Partners, Inc.

M ezzanine Corporation

M itsubishi UFJ Capital Co.,Ltd

MITSUI SUMITOMO INSURANCE Venture Capital Co.,Ltd.

Mizuho Capital Co.,Ltd Mobile Internet Capital Inc. NEOSTELLA CAPITAL CO.,LTD. New Frontier Partners Co.,Ltd. Nippon Venture Capital Co.,Ltd. NISSAY CAPITAL CO., LTD.

NOMURA RESEARCH & ADVISORY CO., LTD.

NTT DOCOMO Ventures, Inc.
Oita Venture Capital Co.,Ltd.
OMRON VENTURES CO., LTD.

OPT Ventures, Inc.

ORIX CAPITAL CORPORATION

Phoenix Capital CO., Ltd.
Polaris Capital Group Co., Ltd.
Sagamihara Incubation Center Ltd.

SANSEI CAPITAL INVESTMENT CO., LTD.

Sapporo Hokuyo Leasing Co.,Ltd

SBI Holdings, Inc.

SEIBU Shinkin Capital Corporation SENSHU IKEDA CAPITAL CO.,LTD. SHIGAGIN LEASE & CAPITAL CO.LTD Shigin Regional Economic Research Institute Inc.

Shinkin Capital Co.,Ltd.

Shinsei Corporate Investment Limited Shizuoka Capital Company Limited

SK Ventures Co., Ltd.

SMBC Venture Capital Co., Ltd.

Solution Design Co.,Ltd

Strategic Investment Partners Inc.

Sumitomo Mitsui Trust Investment Co., Ltd.

SunBridge Global Ventures Inc. Sync Partners Co.,Ltd. T•Hands On Investment, Inc. The Gogin Capital Co.,Ltd.

The Japan Science and Technology Agency The Kiyo Lease & Capital Co., Ltd. The Tottori Capital Co., Ltd.

The University of Tokyo Edge Capital Co.,Ltd.

TNP On The Road Corporation
Tohoku Innovation Capital Corporation
TOKIO MARINE CAPITAL Co.,Ltd
TSUNEISHI PARTNERS Co., Ltd.

Venture Labo Co., Ltd.
VENTURE UNITED, Inc.

WERU INVESTMENT CO.,LTD.

Whiz Partners Inc.

Watervein Partners

Yasuda Enterprise Development Co., Ltd. YOKOHAMA CAPITAL CO., LTD.

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