

April 1, 2011

Japan Bank for International Cooperation
Japan Finance Corporation

A Survey on the Outlook of the Nikkei-JBIC Carbon Quotation Index

JBIC conducted a survey of market participants on their outlook of Nikkei-JBIC Carbon Quotation Index (“N-J Carbon”) through the end of December 2012 (Appendix). A total of 23 responses were tabulated and shown in graphs in the following pages. Since it is useful to have information on how the market participants foresee price movements going forward, we are pleased to release the findings of the survey as a reference for business activities.

JBIC has been releasing the N-J Carbon in cooperation with 7 corporations: Barclays Capital Japan Limited, Daiwa Securities Capital Markets Co.Ltd., JP Morgan Securities Japan Co., Ltd., Marubeni Corporation, Merrill Lynch Japan Securities Co., Ltd., Orbeo/Rhodia Japan and Sumitomo Corporation. The N-J Carbon recovered up to the ¥1,600 range in October 2010, however, it has trended down, reaching the ¥1,200 range in January 2011.

It should be kept in mind that the responses to the survey represent the views of the individual respondents and do not represent the views of the firms participating in the survey nor do they represent the secondary market.

Results of a Survey on the Outlook of the N-J Carbon Quotation Index

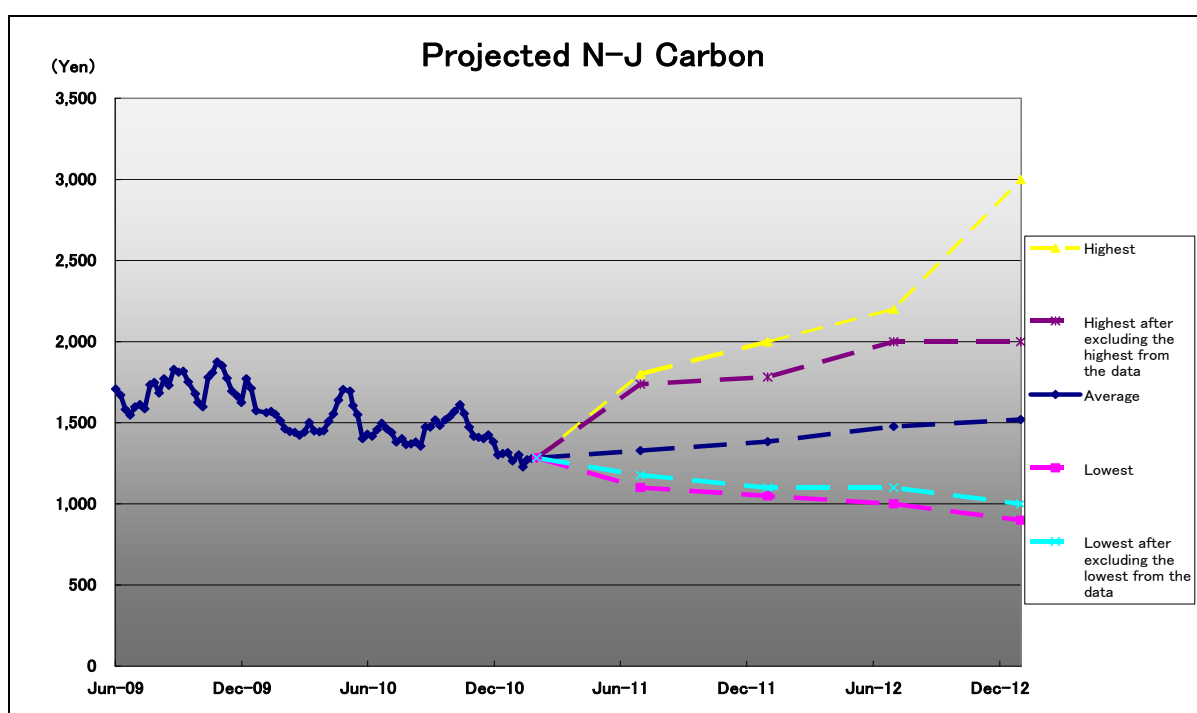
1. Projected values of the Nikkei-JBIC Carbon Quotation Index (“N-J Carbon”) (Japanese Yen)

(1) Projected values (as of the end of June 2011, December 2011, June 2012 and December 2012)

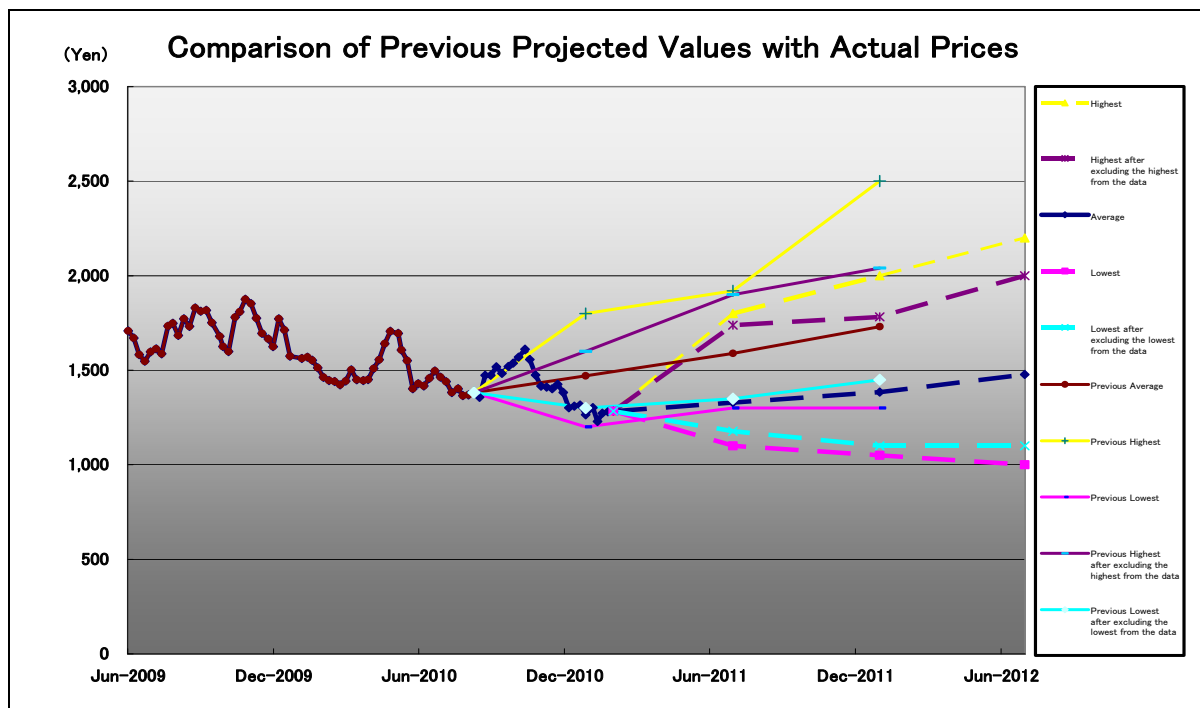
Projected Values	End of June 2011	End of December 2011	End of June 2012	End of December 2012
Average	1,329	1,384	1,477	1,520
Highest	1,800	2,000	2,200	3,000
Lowest	1,100	1,050	1,000	900

(Cf) Results after excluding the highest and lowest prices from the data at the respective dates

Projected Values	End of June 2011	End of December 2011	End of June 2012	End of December 2012
Average	1,329	1,370	1,465	1,479
Highest	1,738	1,782	2,000	2,000
Lowest	1,177	1,100	1,100	1,000



(2) Comparison of previous projected values with actual prices



(3) Summary

The projected values were: ¥1,329 at the end of June 2011; ¥1,384 at the end of December 2011; ¥1,477 at the end of June 2012; and ¥1,520 at the end of December 2012. While a respondent forecasted a dip below the ¥1,000 range, the overall outlook of the average forecast value of N-J Carbon was a gradual increase toward December 2012.

Comparing the previous projected values in August 2010 with the actual prices, the actual prices of N-J Carbon increased at almost the same pace as the highest of projected values from August 2010 to October 2010. However, the trends reversed at October 2010. The prices of N-J Carbon dropped to the same price as the lowest of projected values in January 2011. Then the prices showed the slight upward trend for recovery, moreover, it can be predicted that the upward pace of the average of projected values in this survey was slower than one in the previous survey.

2. Factors causing fluctuations in N-J Carbon from August 2010 through January 2011

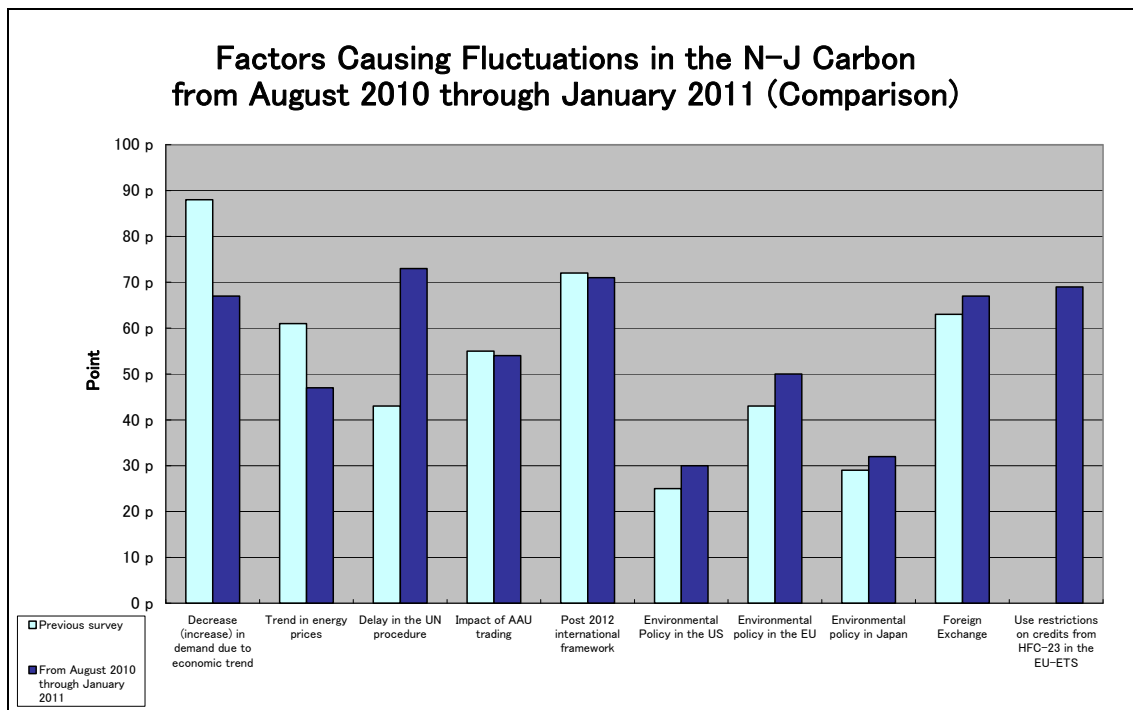
(1) Factors causing fluctuations

A set of indicative factors causing fluctuations was listed, and the respondents were asked to what extent the individual factors affected N-J Carbon from August 2010 through January 2011.

	Total points		Change from the previous survey	Number of respondent who answered “extremely important”	
(1) Decrease (increase) in demand due to economic trend	31	(67p)	▼ -21p	11	(47%)
(2) Trend in energy prices	22	(47p)	▼ -14p	4	(17%)
(3) Delay in the UN procedure	34	(73p)	▲ +30p	13	(56%)
(4) Impact of AAU trading	25	(54p)	▼ -1p	9	(39%)
(5) Post 2012 international framework	33	(71p)	▼ -1p	13	(56%)
(6) Environmental policy in the US	14	(30p)	▲ +5p	3	(13%)
(7) Environmental policy in the EU	23	(50p)	▲ +7p	5	(21%)
(8) Environmental policy in Japan	15	(32p)	▲ +3p	5	(21%)
(9) Foreign exchange	31	(67p)	▲ +4p	10	(43%)
(10) Use restrictions on credits from HFC-23 in the EU-ETS	32	(69p)	NA	11	(47%)

Note:

1. Respondents were asked to select one of the following three choices: “extremely,” “somewhat” and “slightly.”
2. The total point was calculated by assigning 2 points to “extremely,” one point to “somewhat” and zero point to “slightly.”
3. Figures in the parentheses are the actual points converted on a 100-point scale to be used for comparison with the results in the previous survey. Change from the previous survey is also expressed on a 100-point scale.



(2) Summary

The respondents viewed a “delay in the UN procedure” as the most significant factor causing fluctuations in the N-J Carbon, which was followed, in descending order, by a “post 2012 international framework,” a “use restrictions on credits from HFC-23 in the EU-ETS,” a “decrease (increase) in the demand due to economic trend” and a “foreign exchange (JPY-EURO, N-J Carbon is JPY denominated).”

Compared to the previous survey, the notable findings are that there was a sharp increase in the responses that the “delay in the UN procedure” and that the responses that the “decrease (increase) in demand due to economic trend” and the “trend in energy prices” declined.

3. Factors causing fluctuations in the N-J Carbon in the future

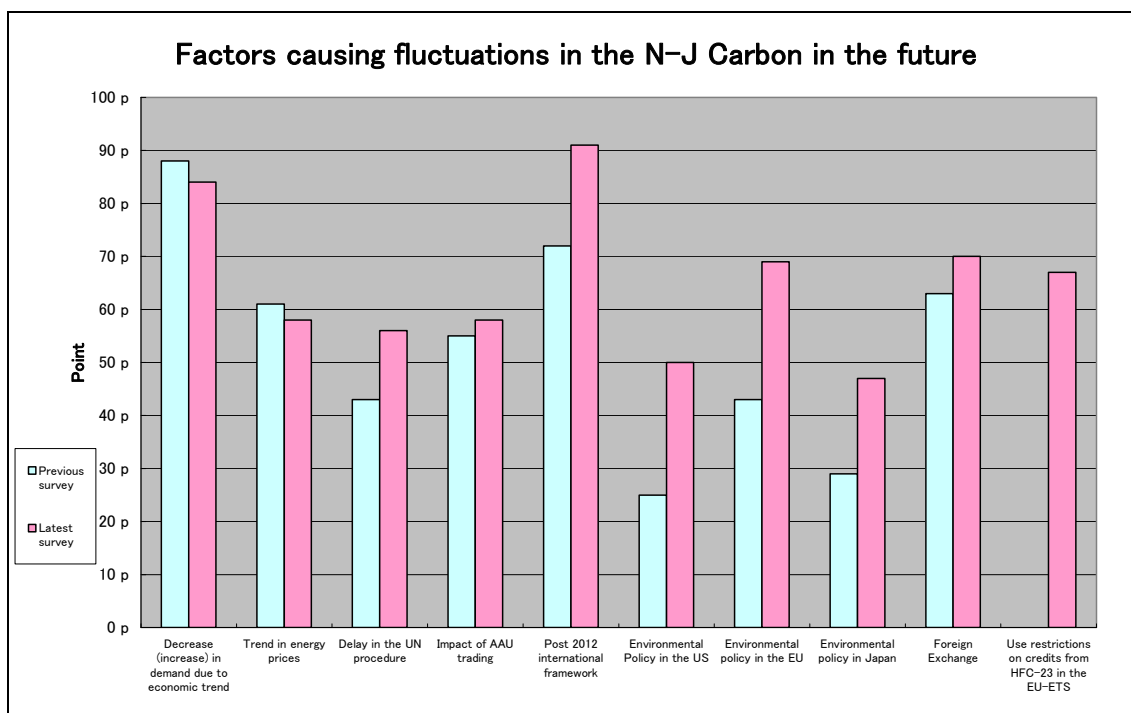
(1) Factors causing fluctuations

A set of factors causing fluctuations was given, and the respondents were asked to what extent the individual factors would affect the N-J Carbon in the future.

	Total points		Change from the previous survey	Number of respondent who answered “extremely important”	
(1) Decrease (increase) in demand due to economic trend	39	(84p)	▼ - 4p	16	(69%)
(2) Trend in energy prices	27	(58p)	▼ - 3p	7	(30%)
(3) Delay in the UN procedure	26	(56p)	▲ + 13p	6	(26%)
(4) Impact of AAU trading	27	(58p)	▲ + 3p	11	(47%)
(5) Post 2012 international framework	42	(91p)	▲ + 19p	19	(82%)
(6) Environmental policy un the US	23	(50p)	▲ + 25p	7	(30%)
(7) Environmental policy in the EU	32	(69p)	▲ + 26p	11	(47%)
(8) Environmental policy in Japan	22	(47p)	▲ + 18p	6	(26%)
(9) Foreign exchange	31	(70p)	▲ + 7p	10	(45%)
(10) Use restrictions on credits from HFC-23 in the EU-ETS	31	(67p)	NA	12	(52%)

Note:

1. Respondents were asked to select one of the following three choices: “extremely,” “somewhat” and “slightly.”
2. The total point was calculated by assigning 2 points to “extremely,” one point to “somewhat” and zero point to “slightly.”
3. Figures in the parentheses are the actual points converted on a 100-point scale to be used for comparison with the results in the previous survey. Change from the previous survey is also expressed on a 100-point scale.



(2) Summary

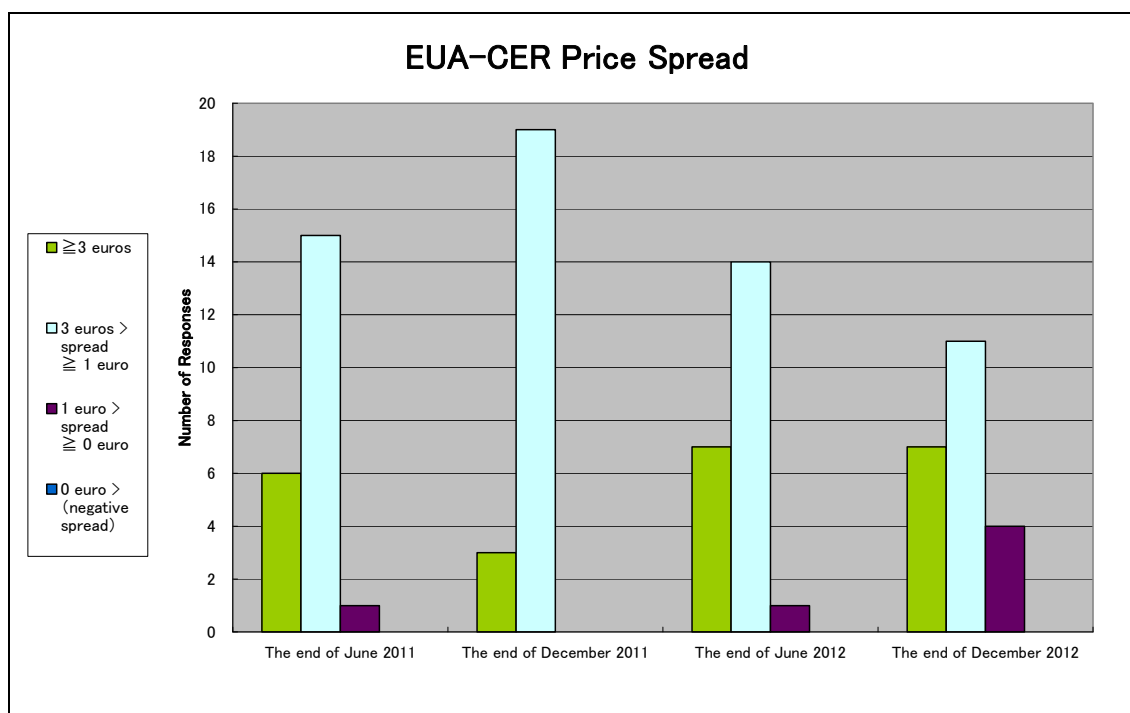
The respondents viewed a “post 2012 international framework” as the most significant factor causing fluctuations in the N-J Carbon, which was followed, in descending order, by a “decrease (increase) in demand due to economic trend,” a “foreign exchange (JPY-EURO, N-J Carbon is JPY denominated),” an “environmental policy in the EU” and a “use restrictions on credits from HFC-23 in the EU-ETS.” Over 80% of the respondents answered that the “post 2012 international framework” would extremely affect the N-J Carbon, which indicates that the post Kyoto Protocol has a lot of attention.

Compared to the previous survey, the number of the responses that the “environmental policy in the EU,” an “environmental policy in the US” and an “environmental policy in Japan” increased considerably. These trends may reflect a view that the future environmental policies will significantly affect the N-J Carbon.

4. Spread between EUA and issued CER prices

(1) Spread

	≥ 3 euros	3 euros > spread ≥ 1 euro	1 euro > spread ≥ 0 euro	0 euro > (negative spread)
(1) The end of June 2011	6 (27%)	15 (68%)	1 (4%)	0 (0%)
(2) The end of December 2011	3 (13%)	19 (86%)	0 (0%)	0 (0%)
(3) The end of June 2012	7 (31%)	14 (63%)	1 (4%)	0 (0%)
(4) The end of December 2012	7 (31%)	11 (50%)	4 (18%)	0 (0%)



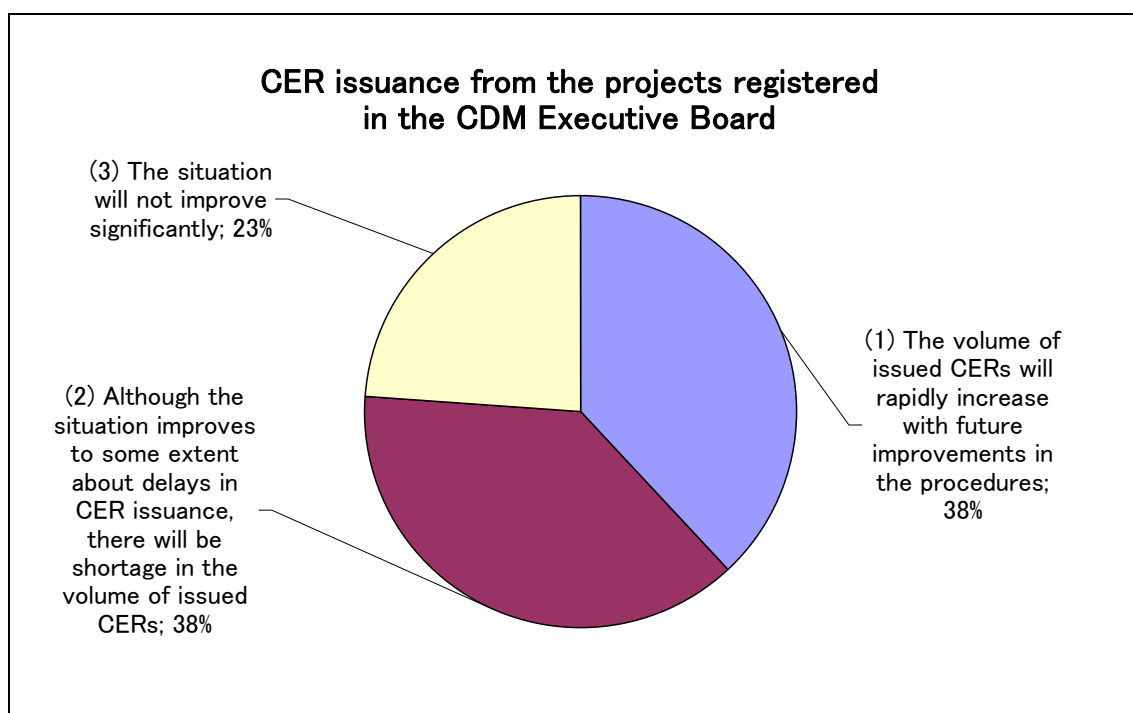
(2) Summary

The overall trend is that respondents expected that while the EUA price continued to be higher than CER price, the spread began to be narrow gradually in the future. On the other hand, no respondent foresaw that CER price got higher than EUA price, reversing their prices.

5. It is said that there is a delay in issuing CERs from the projects registered in the CDM Executive Board. What are implications of this delay?

(1) Implications of delayed CER issuance

	Number of respondents
(1) The volume of issued CERs will rapidly increase with future improvements in the procedures	8 (38%)
(2) Although the situation improves to some extent about delays in CER issuance, there will be shortage in the volume of issued CERs	8 (38%)
(3) The situation will not improve significantly	5 (23%)



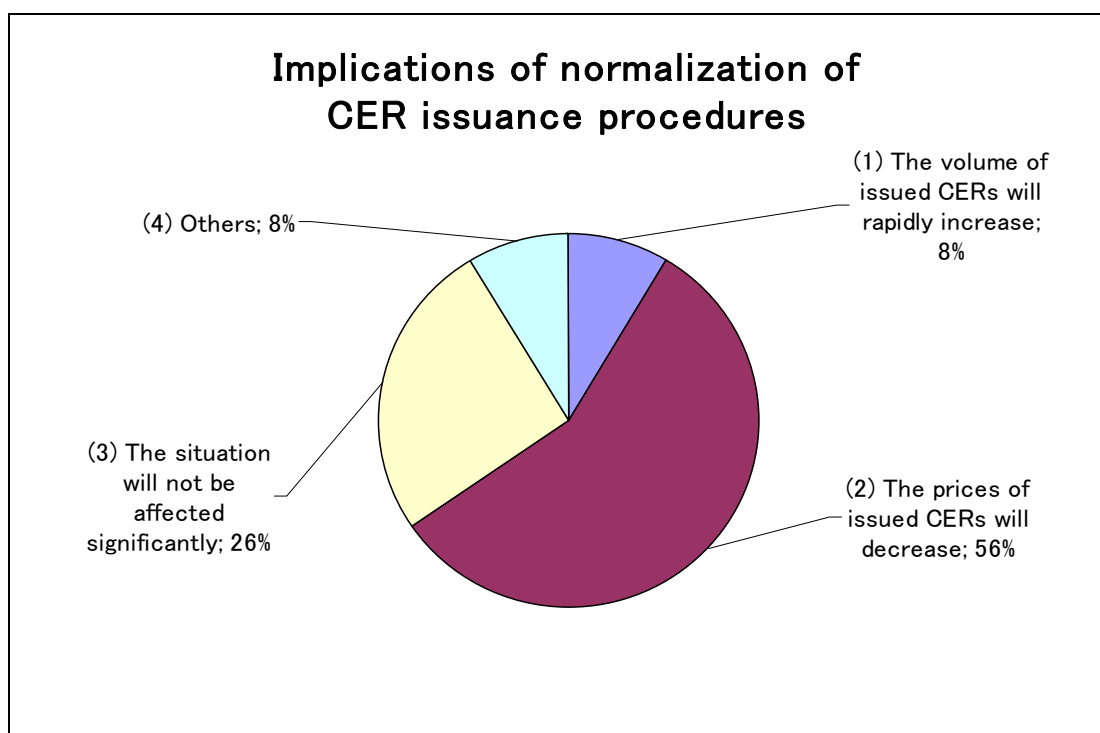
(2) Summary

76% of the respondents expected improvements of the procedures in the future and then their responses were divided into two: a “the volume of issued CERs will rapidly increase” and a “there will be shortage in the volume of issued CERs.” They reflect the positive views were shared by the majority of respondents towards future improvements in the problems regarding CERs issuance, however, it is found that their effects were controversial.

6. If the CER issuance procedures from the projects registered in the CDM Executive Board are improved and they are normalized, what are implications of these effects?

(1) Effects of normalization of CER issuance procedures

	Number of respondents
(1) The volume of issued CERs will rapidly increase	2 (8%)
(2) The price of issued CERs will decrease	13 (56%)
(3) The situation will not affect significantly	6 (26%)
(4) Others	2 (8%)



(2) Summary

Over 50% of the respondents expected that if the CER issuance procedures were normalized, the price of issued CERs would decrease. There was also a response that the spread between CER and EUA would increase.

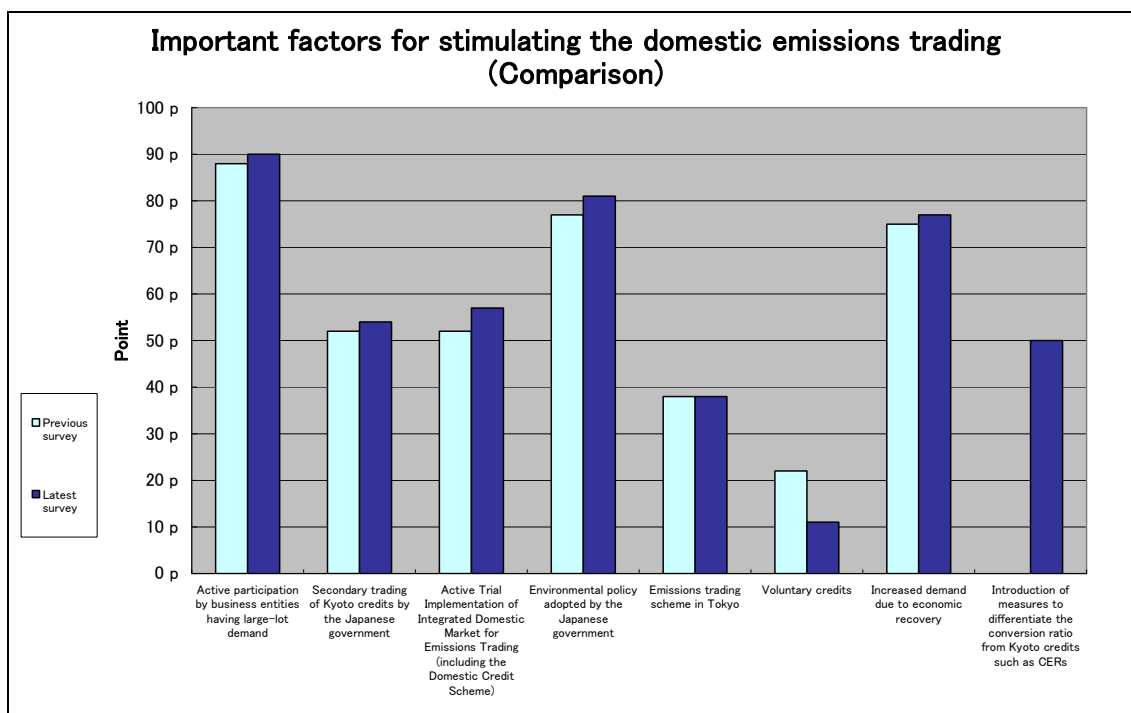
7. Important factors for stimulating domestic emissions trading

(1) Important factors

	Total points		Change from the previous survey	Number of respondent who answered “extremely important”	
(1) Active participation by business entities having large-lot demand	40	(90p)	▲ +2p	18	(78%)
(2) Secondary trading of Kyoto credits by the Japanese government	24	(54p)	▲ +2p	9	(39%)
(3) Active Trial Implementation of Integrated Domestic Market for Emissions Trading (including the Domestic Credit Scheme)	24	(57p)	▲ +5p	9	(40%)
(4) Environmental policy adopted by the Japanese government	36	(81p)	▲ +4p	16	(69%)
(5) Emissions trading scheme in Tokyo	17	(38p)	▲ 0p	3	(13%)
(6) Voluntary credits	5	(11p)	▼ -11p	0	(0%)
(7) Increased demand due to economic recovery	34	(77p)	▲ +2p	12	(52%)
(8) Introduction of measures to differentiate the conversion ratio from Kyoto credits such as CERs	22	(50p)	NA	5	(21%)

Note:

1. Respondents were asked to select one of the following three choices: “extremely,” “somewhat” and “slightly.”
2. The total point was calculated by assigning 2 points to “extremely,” one point to “somewhat” and zero point to “slightly.”
3. Figures in the parentheses are the actual points converted on a 100-point scale to be used for comparison with the results in the previous survey. Change from the previous survey is also expressed on a 100-point scale.



(2) Summary

Many respondents viewed an “active participation by business entities having large-lot demand” as the most significant factor for stimulating domestic emissions trading, which was the same as the previous survey. It was followed by an “environmental policy of the Japanese government” and an “increased demand due to economic recovery.” Compared to the previous survey, it can be seen that the effects of voluntary credits were expected to weaken.

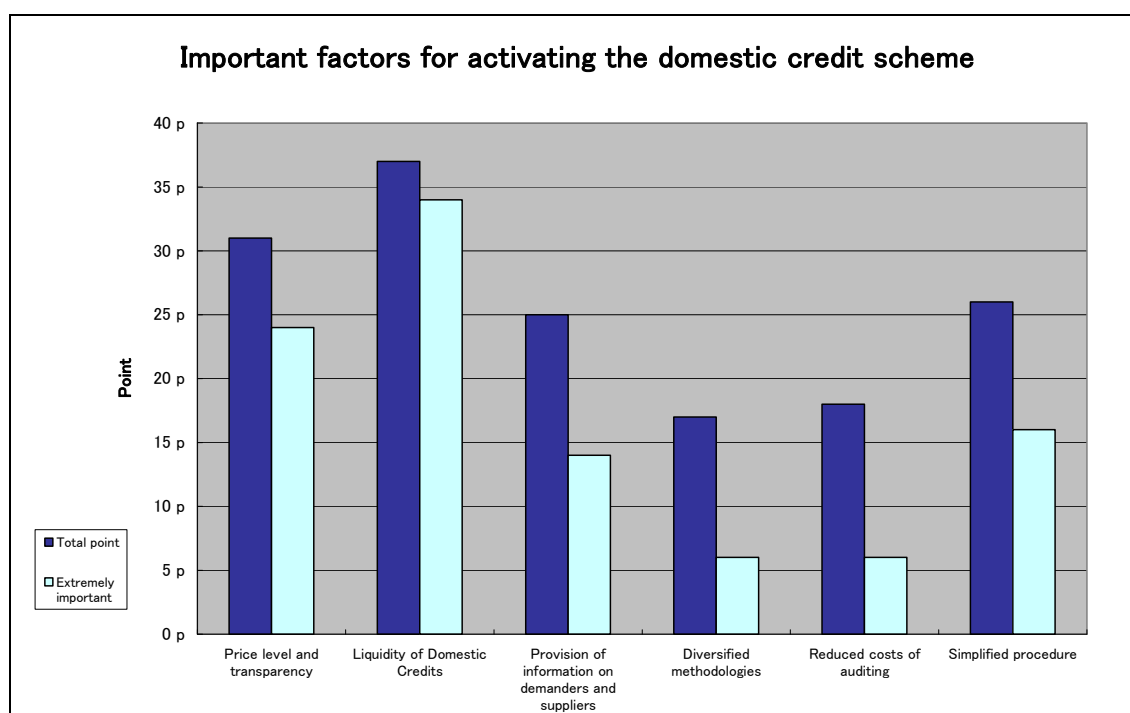
8. Important factors for activating the domestic credit scheme

(1) Important factors

	Total points	Number of respondents who answered “extremely important”
(1) Price level and transparency	31 (67p)	12 (52%)
(2) Liquidity of Domestic Credits	37 (80p)	17 (73%)
(3) Provision of information on demanders and suppliers	25 (54p)	7 (30%)
(4) Diversified methodologies	17 (36p)	3 (13%)
(5) Reduced costs of auditing	18 (39p)	3 (13%)
(6) Simplified procedure	26 (56p)	8 (34%)

Note:

1. Respondents were asked to select one of the following three choices: “extremely,” “somewhat” and “slightly.”
2. The total point was calculated by assigning 2 points to “extremely,” one point to “somewhat” and zero point to “slightly.”
3. Figures in the parentheses are the actual points converted on a 100-point scale to be used for comparison with the results in the previous survey.



(2) Summary

The respondents viewed a “liquidity of domestic credits” as the most important factor for activating domestic credit scheme, followed by a “price level and transparency” and a “simplified procedures.” 80% of the respondents considered it important to ensure the “liquidity of domestic credits.”

Although not included as a factor in the survey question, there were also multiple responses viewing the following factors as important: creation of demand on the domestic credits; establishment of the domestic credit scheme; and lower price of the domestic credits.

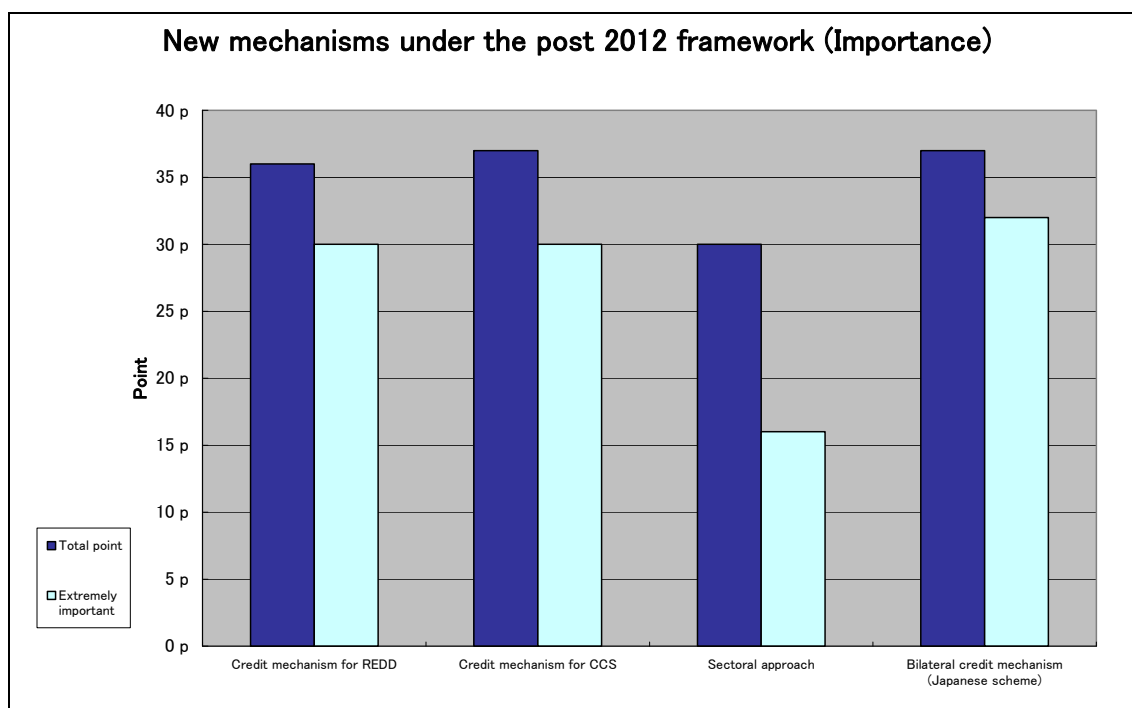
9. **New mechanisms under the post 2012 framework**

(1) Importance and timing of designing institutional rules and procedures

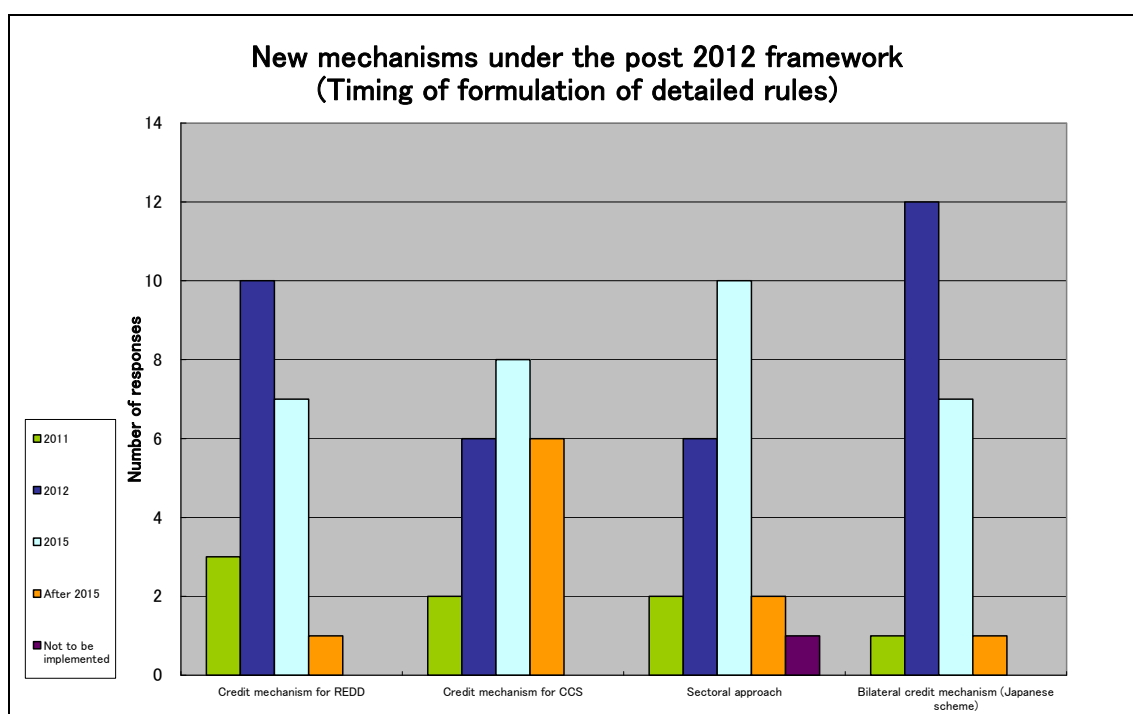
“Importance”	Total points		Number of respondents who answered “extremely important”	
(1) Credit mechanism for REDD	36	(85p)	15	(71%)
(2) Credit mechanism for CCS	37	(84p)	15	(68%)
(3) Sectoral approach	30	(68p)	8	(36%)
(4) Bilateral credit mechanism (Japanese scheme)	37	(88p)	16	(76%)

Note:

1. Respondents were asked to select one of the following three choices: “extremely,” “somewhat” and “slightly.”
2. The total point was calculated by assigning 2 points to “extremely,” one point to “somewhat” and zero point to “slightly.”
3. Figures in the parentheses are the actual points converted on a 100-point scale to be used for comparison with the results in the previous survey.



“Timing”	Number of respondents				
	2011	2012	2015	After 2015	Not to be implemented
(1) Credit mechanism for REDD	3	10	7	1	0
(2) Credit mechanism for CCS	2	6	8	6	0
(3) Sectoral approach	2	6	10	2	1
(4) Bilateral credit mechanism (Japanese scheme)	1	12	7	1	0



(2) Summary

The respondents viewed a “credit mechanism for CCS” as the most significant factor for importance of new mechanism under the post 2102 framework, which was followed, in descending orders, by a “bilateral credit mechanism (Japanese scheme),” a “credit mechanism for REDD” and a “sectoral approach.” More than 80% of the respondents considered the top three mechanisms to be important.

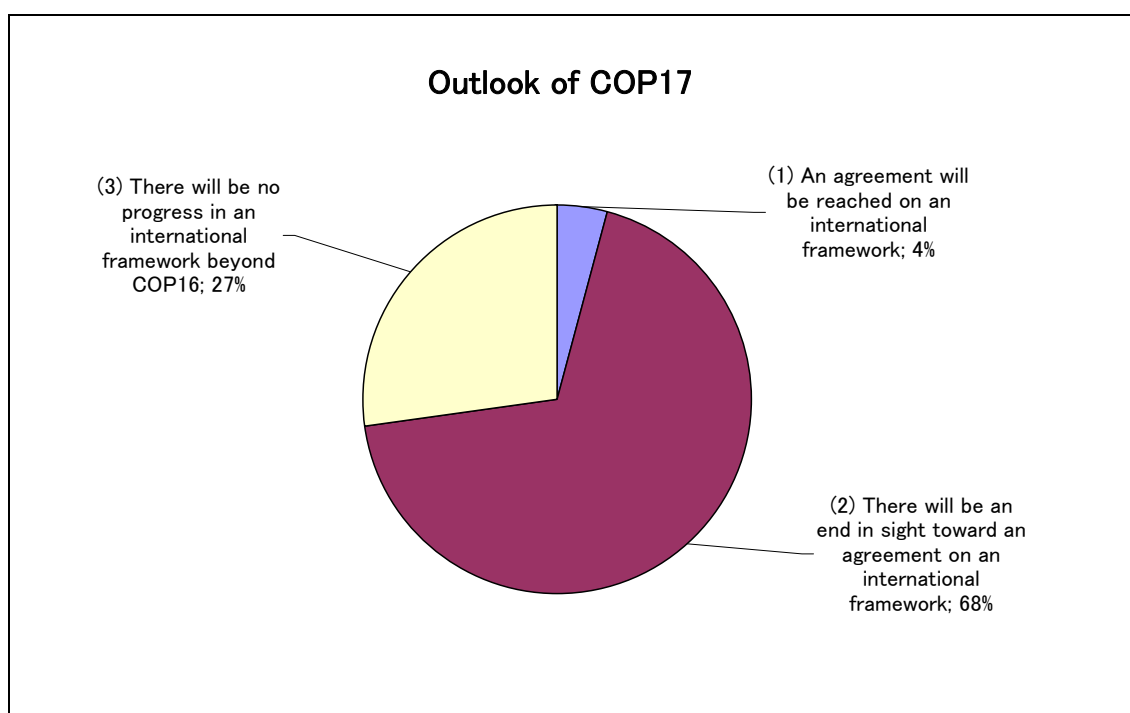
The survey found that over 50% of the respondents expected that credit mechanism for REDD and a bilateral credit mechanism would start by 2012. A

credit mechanism for CCS was expected to start by 2015 a little later than a credit mechanism for REDD.

1 0 . In your view, what conclusion will be reached in COP17 to be held in Durban, South Africa, about an international framework, including bilateral credit?

(1) Outlook of COP17

	Number of respondents
(1) An agreement will be reached on an international framework	1 (4%)
(2) There will be an end in sight toward an agreement on an international framework	15 (68%)
(3) There will be no progress in an international framework beyond COP16	6 (27%)



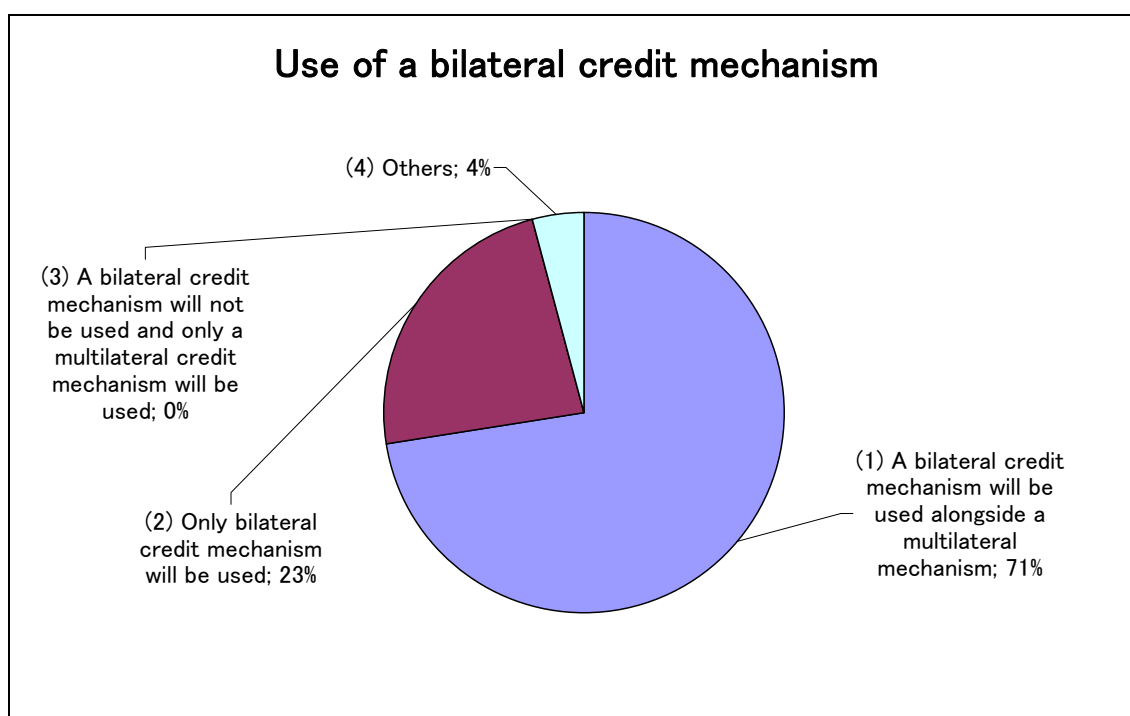
(2) Summary

Over 70% of the respondents expected that the agreement on an international framework of the post Kyoto Protocol would be agreed in COP17 and there would be an end in sight towards the agreement. These responses showed that many respondents expected some progress in discussion on the Post Kyoto Protocol in COP17.

1 1 . In your view, how will a bilateral credit mechanism be utilized in the end?

(1) Use of a bilateral credit mechanism

	Number of respondents
(1) A bilateral credit mechanism will be used alongside a multilateral mechanism	15 (71%)
(2) Only bilateral credit mechanism will be used	5 (23%)
(3) A bilateral credit mechanism will not be used and only a multilateral credit mechanism will be used	0 (0%)
(4) Others	1 (4%)



(2) Summary

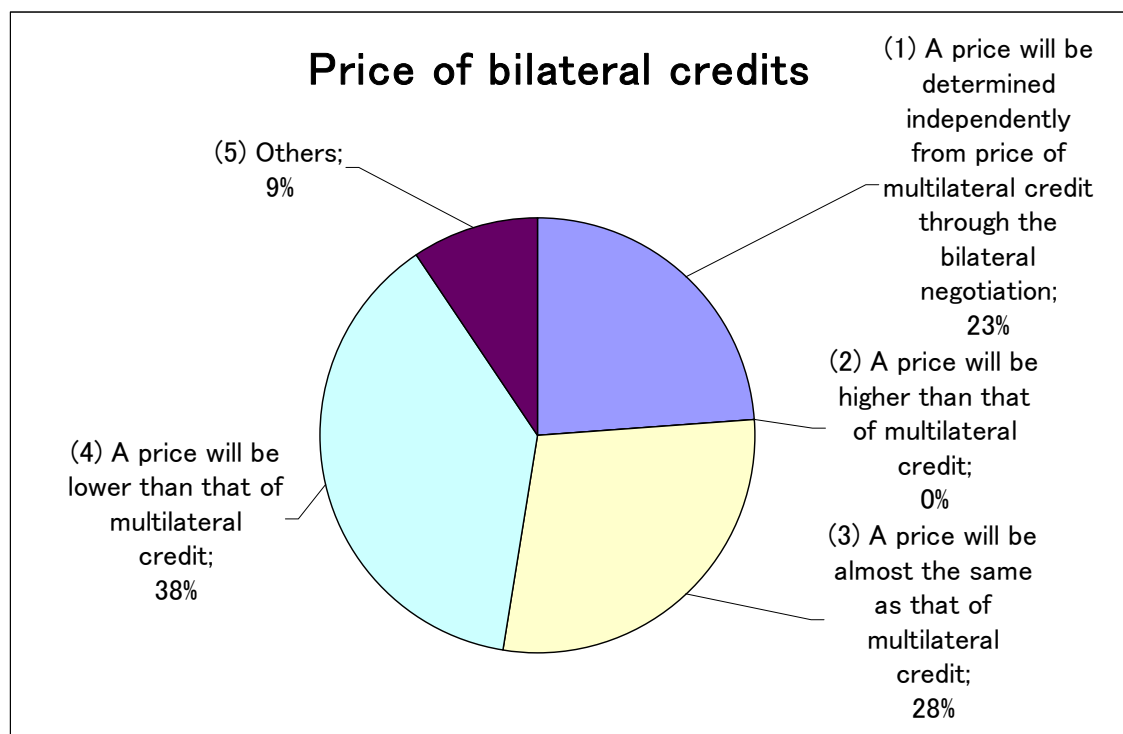
About 70% of the respondents expressed that a bilateral credit mechanism would be used alongside a multilateral mechanism. More than 20% of the respondents expected that only bilateral credits would be used.

On the other hand, there was no response that a bilateral credit mechanism would not be used and only a multilateral credit mechanism would be used.

1 2. In your view, how will price of bilateral credit be determined if a bilateral credit mechanism is used alongside a multilateral mechanism?

(1) Price of bilateral credit

	Number of respondents
(1) A price will be determined independently from price of multilateral credit through the bilateral negotiation	5 (23%)
(2) A price will be higher than that of multilateral credit	0 (0%)
(3) A price will be almost the same as that of multilateral credit	6 (28%)
(4) A price will be lower than that of multilateral credit	8 (38%)
(5) Others	2 (9%)



(2) Summary

There was no response that a price of bilateral credit would be higher than that of multilateral credit. On the other hand, over 60% of the respondents in total expressed that a price would be almost the same as/higher than that of multilateral credit. More than 20% of the respondents expected that a price would be determined independently from price of multilateral credit through the

bilateral negotiation.

Although not included as a factor in the survey question, there were also multiple responses viewing the following factors as important: only if a bilateral credit is compatible with a multilateral credit, the price of bilateral credit is linked to that of multilateral credit; and the price of bilateral credit is determined by reference to that of multilateral credit through the bilateral negotiation.

- (6) Environmental policy in the US
 - (7) Environmental policy in the EU
 - (8) Environmental policy in Japan
 - (9) Foreign exchange
 - (10) Use restrictions on credits from HFC-23 in the EU-ETS
 - (11) Others ()
4. Spread between EUA and issued CER prices (EUA price – issued CER price)
- (1: “ ≥ 3 euros,” 2: “ $3 \text{ euros} > \text{spread} \geq 1 \text{ euro}$,” 3: “ $1 \text{ euro} > \text{spread} \geq 0 \text{ euro}$ ” and 4: “ $0 \text{ euro} > (\text{negative spread})$ ”)
- (1) End of June 2011:
 - (2) End of December 2011:
 - (3) End of June 2012:
 - (4) End of December 2012:
5. It is said that there is a delay in issuing CERs from the projects registered in the CDM Executive Board. What are implications of this delay?
- (1) The volume of issued CERs will rapidly increase with future improvements in the procedures.
 - (2) Although the situation improves to some extent about delays in CER issuance, there will be shortage in the volume of issued CERs.
 - (3) The situation will not improve significantly.
 - (4) Others ()
6. If the CER issuance procedures from the projects registered in the CDM Executive Board are improved and they are normalized, what are implications of these effects?
- (1) The volume of issued CERs will rapidly increase.
 - (2) The price of issued CERs will decrease.
 - (3) The situation will not affect significantly.
 - (4) Others ()
7. What factors will stimulate the domestic emissions trading? To what extent will such factors be important?
- (1: “extremely important,” 2: “somewhat important” and 3: “not important”)
- (1) Active participation by business entities having large-lot demand
 - (2) Secondary trading of Kyoto credits by the Japanese government

- (3) Active Trial Implementation of Integrated Domestic Market for Emissions Trading (including the Domestic Credit Scheme)
- (4) Environmental policy of the Japanese government
- (5) Emissions trading scheme in Tokyo
- (6) Voluntary credits
- (7) Increased demand due to economic recovery
- (8) Introduction of measures to differentiate the conversion ratio from Kyoto credits such as CERs
- (9) Others ()

8. Since July this year, information on domestic project generating domestic credits has been listed on the Carbon Credit Trading Platform. What factors will activate the Domestic Credit Scheme? To what extent will such factors be important?

(1: “extremely important,” 2: “somewhat important” and 3: “not important”)

- (1) Price level and transparency
- (2) Liquidity of domestic credits
- (3) Provision of information on demanders and suppliers
- (4) Diversified methodologies
- (5) Reduced costs of auditing
- (6) Simplified procedure
- (7) Others ()

9. Please provide your view on the importance of new mechanisms proposed under the post 2012 framework and on the timing by which their institutional rules and procedures will have been designed.

(1) Credit mechanism for REDD (REDD+)

(a) Importance (1: “extremely important,” 2: “somewhat important” and 3: “not important”)

(b) Timing (1: “2011,” 2: “2012,” 3: “2015,” 4: ”After 2015” and 5: ”Not to be implemented”)

(2) Credit mechanism for CCS

(a) Importance (1: “extremely important,” 2: “somewhat important” and 3: “not important”)

(b) Timing (1: “2011,” 2: “2012,” 3: “2015,” 4: ”After 2015” and 5: ”Not to be implemented”)

(3) Sectoral approach

- (a) Importance (1: “extremely important,” 2: “somewhat important” and 3: “not important”)
 - (b) Timing (1: “2011,” 2: “2012,” 3: “2015,” 4: ”After 2015” and 5: ”Not to be implemented”)
- (4) Bilateral Credit Mechanism
- (a) Importance (1: “extremely important,” 2: “somewhat important” and 3: “not important”)
 - (b) Timing (1: “2011,” 2: “2012,” 3: “2015,” 4: ”After 2015” and 5: ”Not to be implemented”)
 - (c) In your view, what conclusion will be reached in COP17 to be held in Durban, South Africa, about an international framework, including bilateral credit? (1: “An agreement will be reached on an international framework,” 2: “There will be an end in sight toward an agreement on an international framework,” 3: “There will be no progress in an international framework beyond COP16” and 4: “Others ()”)
 - (d) In your view, how will a bilateral credit mechanism be utilized in the end? (1: “A bilateral credit mechanism will be used alongside a multilateral mechanism,” 2: “Only bilateral credit mechanism will be used,” 3: “A bilateral credit mechanism will not be used and only a multilateral credit mechanism will be used” and 4: “Others ()”)
 - (e) In your view, how will price of a bilateral credit be determined if a bilateral credit mechanism is used alongside a multilateral mechanism? (1: “A price will be determined independently from price of multilateral credit through the bilateral negotiation,” 2: “A price will be higher than that of multilateral credit,” 3: “A price will be almost the same as that of multilateral credit,” 4: “A price will be lower than that of multilateral credit” and 5: “Others ()”)

10. Free Comment

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With respect to the subscription of securities, and the handling of primary and secondary offering and private placement of securities, it may be impossible to raise funds as planned, or the sales proceeds may fall below the expected level as a result of having to defer or suspend the primary or secondary offering or private placement due to fluctuations of stock prices, interest or foreign exchange rates, changes in political, economic or financial conditions (whether domestic or foreign), the business affairs or asset or credit status of the issuer, or due to other factors. Furthermore, securities sales and purchase or derivative transactions may be subject to losses as a result of fluctuations of securities prices or value due to changes in stock prices, interest or foreign exchange rates, real estate or commodity prices, political, economic or financial conditions (whether domestic or foreign), the business affairs or asset or credit status of the issuer, the credit status of backup assets, indicative underlying assets, or due to other factors.

Customer fees, etc.

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Please carefully read the documents which are delivered prior to the execution of contract, and the prospectus or customer reference materials for each financial instrument, as the content of risks, fees and other expenses vary depending on each instrument.

Trade name: Japan Finance Corporation