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COP15 to Address Future of Climate Initiatives

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Summary

- The United Nations Climate Change Conference (COP15) kicks off on 7 December in Copenhagen. The US and China have each unveiled medium-term emissions targets, raising hopes of a successful outcome for the conference. Still, it remains to be seen whether COP15 can serve up a seamless transition to a post-Kyoto framework.
- The conference will address five overarching themes laid out in the Bali “roadmap” (action plan established at COP13): (1) a shared vision for long-term cooperation, (2) mitigation strategies, (3) adaptation measures, (4) technology development and transfer, and (5) the provision of financial resources and investment. Pundits expect little more than agreement on a broadly defined framework, but we are keenly interested in potential developments on the funding front.
- Meanwhile, multilateral and bilateral negotiations on energy and climate strategies have been gaining ground given the challenges posed by consensus building under the COP framework. A post-Kyoto framework might not even be necessary right now considering early efforts to mitigate climate change.
- There is a strong global push for next-generation infrastructure, especially in those regions strapped for resources or looking to shrink their carbon footprint. This has put the spotlight on Japan, which excels in conservation and recycling given its own status as a resource-poor economy. A joint agreement at COP15 would bode well for the long term, assuming a growing international presence would enable Japan to strengthen ties with nations positioned for growth, including those in Africa and South America.

***Political consensus
would signify big win
for COP15***

Copenhagen will host the fifteenth United Nation Framework Convention on Climate Change (UNFCCC), or COP15¹, from 7-18 December. UNFCCC Executive Secretary Yvo de Boer believes the earlier Barcelona climate change talks (2-6 Nov) have established a solid foundation for negotiation on a comprehensive framework at COP15, but the working groups failed to hammer out resolutions on enforcement. All told, we think conference parties may have a hard time finding middle ground on hotly contested topics, primarily emission reduction targets and funding.

The outlook for a post-Kyoto framework remains cloudy, but recent bright spots have improved visibility somewhat. President Barack Obama announced on 25 November the US would seek to cut emissions by 17% of the 2005 level by 2020. China answered a few days later with its own goal to reduce carbon emissions relative to economic growth (GDP) by 40-45% of the 2005 level. The new US target is more aggressive (previously 14% of 2005 level), but amounts to just a 3% cut vs. the 1990 level, lower than the 7% target the US would have faced had it ratified the Kyoto Protocol.

Participating nations have voiced their displeasure with the US given its withdrawal from Kyoto and its weak stance on climate change. With this in mind, some parties are pressing for preconditions to a post-Kyoto framework, including the passage and enactment of a climate bill that establishes a cap-and-trade system in the US. We see few prospects of such a bill passing in 2009, raising the specter of another round of framework negotiations.

***Potential ramifications
of failed conference***

COP15 has been designated as the final deadline for reaching a global consensus on the next round of climate initiatives for the Kyoto Protocol, which is set to expire at end-2012. This is the ultimate objective outlined in the Bali Action Plan, the roadmap for framework negotiations established at COP13 in Bali.

The Bali roadmap (1) established the 2009 deadline for reaching a consensus on a post-Kyoto framework, (2) outlined process guidelines for the negotiations, and (3) proposed five themes to guide discussion (shared vision, mitigation², adaptation³, technology, and funding).

The 2009 deadline reflects the prospective timetable for ratification in member nations. Many fear a gap in the transition from Kyoto to a replacement framework, should conference parties fail to produce an agreement by COP16 (scheduled for end-2010). The most significant risk under this scenario is a sharp fall in the price of emission credits.

The performance of the European Union Greenhouse Gas Emission Trading System (EU ETS) provides a sample scenario. The price of allowances for the 2005-07 period (non-transferable to 2008-12 period) veered south from autumn 2006 amid emerging concerns of over-allocation. Credits valued at €30 per MT of CO₂ had nose-dived to below €1 by February 2007 (Chart 1).

While the EU ETS differs from the Kyoto mechanism for carbon trading, we see risk of significant downside in current emission credit prices, should failure at COP15 fuel fears of a substantial time lag between the end of Kyoto and the implementation of its replacement.

Some have suggested a temporary extension for existing mechanisms using revised emissions targets. In our opinion, this would still lead to lower prices for carbon

¹ COP15: Fifteenth meeting of Conference of Parties, supreme body of UNFCCC (latter established Mar 1994).

² Mitigation: Climate change mitigation, including commitments and determination of appropriate targets.

³ Adaptation: Alleviation of adverse effects (e.g., disaster reduction strategies), including funds for losses/damages.

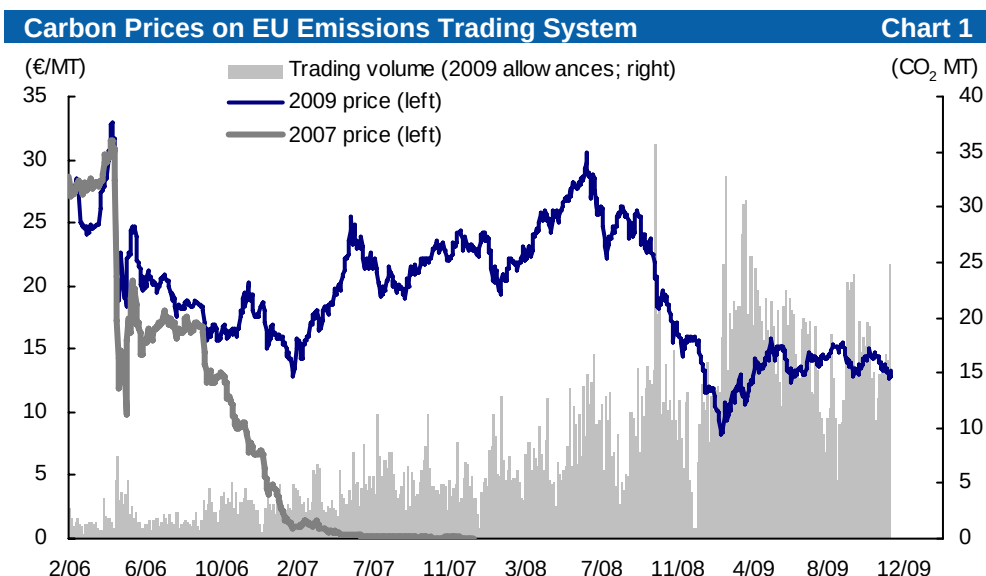
credits considering the low likelihood of more aggressive targets vs. the number of nations likely to abandon the framework.

Financing core theme

Conference parties at COP15 will review each of the five topics proposed under the Bali road map in order to hammer out the details of a post-Kyoto framework. Pundits expect little more than agreement on a broadly defined framework, but we are keenly interested in potential developments on the funding front.

Member nations expect some form of compensation for accepting the risks associated with emissions targets. Funding, technology, and international prestige are common examples, but the most easily and directly quantifiable, in our opinion, are financial incentives. While governments may find it hard to win approval on the merit of technological gains or global stature, cash inflows are a fairly easy sell. Thus, we think conference parties will be hard-pressed to establish binding targets without specifying funding mechanisms.

Three such mechanisms exist under Kyoto and UNFCCC: adaptation funds, which draw 2% of CDM⁴ project revenue to fund other projects; as well as the Special Climate Change Fund and Least Developed Country Fund, which finance climate initiatives through voluntary contributions from advanced nations. According to developing nations, however, these funds are insufficient to meet the demand of climate change initiatives, and many of these nations have expressed concern over the future level of funding under a voluntary funding scheme. Leaders of these nations are unlikely to enter into a climate treaty unless these issues are on the table for negotiation.



Source: ECX (European Climate Exchange); compiled by DIR.

⁴ CDM: Clean development mechanisms grant certified emissions reductions (carbon credits) to advanced nations contributing funding or technology to projects lowering GHG emissions in developing countries.

Plans for new funding mechanism

In fact, the COP15 agenda calls for more detailed examination of a funding mechanism⁵ than before, including many specific proposals. China and a group of 77 other emerging economies (G77/China) are seeking the largest amount of funding, calling for 0.5-1% (\$200-400 billion by UNFCCC estimate) of the GNP of advanced economies. Advanced nations regard these demands as extreme (Chart 2).

Main Proposals for Funding Mechanisms to Combat Global Warming		Chart 2
Mechanism	Outline	Country/region submitting proposal
Obligatory contributions from all nations	All nations except the very poorest to bear costs based on GDP and GHG emissions	EU
Green fund (obligatory contributions from all nations)	Burden of all nations based on per capita GDP	Mexico
Voluntary contributions	Countries able to contribute to do so based on independent covenants	US
Obligatory contributions from advanced economies	Advanced economies to contribute 0.5-1% of GNP	G77/China
Auction of carbon emission allowances	Advanced economies to auction a percentage of their carbon emission allowances	Norway
International carbon tax	Tax of \$2 per MT of carbon emissions	Switzerland
Credits	Turn carbon reductions in emerging economies into credits and sell on open market	Korea
International airport tax, harbor tax	International airport tax, harbor tax	Least developed countries

Source: Various materials; compiled by DIR.

The EU, the keenest on creating a framework to combat global warming, has proposed a mechanism in which contributions are determined by the scale of a country's GDP and GHG (greenhouse gas) emissions. The proposal links funding with GHG reductions. On the other hand, the G77/China proposal places the obligation entirely on advanced economies.

The EU's proposal incorporates an incentive to reduce GHG emissions through a new kind of support framework that differs from the ODA-like suggestion put forward by G77/China. The EU's perspective is easy to understand if the world is seen as one nation. Under a framework for controlling GHG emissions, imposing taxes on regions whose emissions exceed a certain amount is a natural way to reduce any sense of injustice.

G77/China's view is that the conventional frameworks of support for emerging economies should be extended to problems of global warming. However, we should note that measures to combat global warming differ from support extended to emerging economies through methods such as ODA, which strive to ensure minimum standards of living (similar to social welfare if the world is seen as one nation).

In a fight against global warming centered on GHG reductions, introducing the same methods as those employed in social welfare could backfire. For example, technology and funding would flow into a country to help it reduce GHG emissions, but such flows could dry up if emissions are reduced. Thus, if countries are set to benefit more from not reducing emissions, they may not make any efforts to do so in the first place.

Of course, there is no one correct way to ensure effective independent efforts. However, funding and a system for distributing the funds are the keys to establishing an agreement and achieving reduction targets. Note that as GHG emissions are directly linked to energy consumption, countries with high GHG emission volumes are likely to be industrialized nations (including emerging economies) enjoying relatively high growth. With this in mind, we do not believe emerging nations should be exempt from having to reduce GHG emissions or contributing funds commensurate with the size of their economies. Considering the

⁵ Funding mechanism: Mechanism for the transfer of capital and technology from the developed to the developing world.

opposition to reduction targets from the perspective of GDP and GHG, we believe seeking out a funding proposal while imposing the maximum possible reduction obligation on China will be essential for establishing an agreement.

The Bali roadmap seeks to ensure measurable, reportable, and verifiable actions for GHG reductions and fund distribution. It breaks down actions for GHG reductions in a trial attempt to specify possible areas for target setting for emerging economies that have struggled to do so. As far as the distribution of funds goes, it seeks clear actions and results from financial support to combat global warming that is not based on ODA-like welfare. It positions measures to combat global warming along the lines of accounting standards for corporate activities.

***Moves to expand
emission rights at
COP15***

Funds are mainly distributed to emerging economies to support the implementation of CDM (clean development mechanism) projects to combat global warming. CDM projects currently focus on power generation (wind power) and most are under way in China and India, where energy demand is strong.

At COP15, increasing the types of emission rights and proposing reforms to the current CDM are up for debate. Credits are currently mainly issued for energy efficiency, presenting an advantage for rapidly industrializing countries. Meanwhile, forestry credits spur participation of countries engaged in agriculture and forestry.

Forestry and agricultural credits (including those for projects to prevent deforestation and forest degradation) do not currently count toward the reduction targets outlined in the Kyoto Protocol. Moreover, Japan pledged a 6% emission reduction in the Kyoto Protocol, with forest sinks to account for 3.8 percentage points of the reduction target. However, the upper limit has been set for forest sinks by country and emission rights trading cannot be used for forest sinks, so the scheme differs from the CDM.

Meanwhile, REDD (reduce emissions from deforestation and forest degradation) is a scheme under consideration that could make possible the trading of forestry credits. Strong emerging economies Brazil and Indonesia have independently announced reduction targets that take into account forest protection and have raised funds for use in forestry. With participation in reduction obligations by these emerging economies on the horizon, we believe momentum will gather for the introduction of forestry credits in the next framework.

Furthermore, credits for the shipping and aviation industries are attractive for nations reliant not on agriculture or industry, but on tourism. The EU-ETS (EU emission trading system) will target these areas for emission controls from 2012. In the EU-ETS, as these emission rights do not fit into specific countries or regions, moves are afoot to direct the income to support reduction efforts in emerging economies. Plans to factor this into the next COP framework are welcomed as a way to increase sources of funding to combat global warming in emerging economies with no room to reduce their own emissions in agriculture or industry.

Elsewhere, CDM reform proposals suggest a shift from the current project-based mechanism to one based on industry. For sure, a system based on industries such as steel or cement would simplify procedures somewhat from the current one in which estimates are made for the individual reduction benefits of each of the current wind power and other projects.

The EU supports this proposal as it expects involving industries will make it easier for those emerging economies that are resisting setting national reduction targets to participate. The shift to an industry basis should trigger a change from setting

targets to reduce total emissions to setting targets to improve energy efficiency. That said, China has set targets to combat global warming by improving energy efficiency, and is apparently wary of this proposal providing an unfair means to introduce an emissions cap. China currently sets its own independent targets, but is probably cautious of the possibility of obligatory reductions being set based on some internationally agreed formula.

Negotiations other than COP

Among international conferences on global warming, COP garners attention because it (1) is led by the UN and (2) has the largest number of countries participating. COP is held once a year. During the intervening period, negotiations are led by an ad hoc working group (AWG). The next COP framework will factor in not only COP negotiations (AWG-LCA), but also MOP negotiations (AWG-KP). Note that the MOP (meeting of parties to the Kyoto Protocol, not US, China) is to be held alongside COP.

Owing to difficulties in creating a unified vision of what specific measures to put in place in the COP forum, international negotiations on energy policy and global warming are concurrently proceeding on bilateral and multilateral bases. Japan's principal multilateral negotiations on carbon emissions aside from COP include Asia-Pacific Partnership on Clean Development and Climate (APP; formed 2005) and the Major Economies Forum on Energy and Climate (MEF; formed 2009). Of course, APEC and the G20 also address global warming as a major issue, but in this report we are considering only multinational forums launched principally to address climate issues. At this juncture, the most important multilateral organizations in terms of formulating the future framework for climate change policy are MEF, APP, and the Ad Hoc Working Group on Long-term Cooperative Action Under the Convention (AWG-LCA), in which the US, China, and India are participating.

At this time, the most important climate change-related panel after COP is MEF, which President Obama put together in April 2009. The MEF does not greatly differ from the Major Emitter Meetings (formed Sep 2007) set up by former US president George W. Bush with regard to members, goals, or activities, and in fact, is more or less the same alliance.

In the 4 November public hearing of the House Foreign Affairs Committee, US Special Envoy for Climate Change Todd Stern (previously US representative to MEF) reported that MEF and bilateral talks were proceeding more quickly than COP. That said, he did concede ongoing concerns that progress on the US draft legislation on climate change might be delayed, although he expressed hope that Senate committee deliberations, which are just getting started, would advance more quickly.

Japan's role in APP and MEF

In contrast with COP, which had representatives from 189 countries in the August 2009 meeting, MEF has 20 nations as members and APP seven. As such, it is no surprise that COP takes longer to reach a consensus. All the same, COP seems to be dragging its feet despite its acknowledgement that global warming initiatives are an urgent issue. In this respect, we hope that Japan will be able to play an active role in the APP and MEF.

Overview of Japan's Participation in International Climate Change Negotiations						Chart 3
Official name	United Nations Framework Convention on Climate Change	Asia-Pacific Partnership for Clean Development and Climate			Major Economies Forum on Energy and Climate	
Common name	Conference of Parties (COP)	APP US-led			MEF Led by US president Obama	
Date inaugurated	1st meeting held Mar 95	Joint communique issued Jul 05 1st ministerial meeting held Jan 06			1st meeting held Apr 09	
Principal members	189 nations (as of Aug 2009)	Japan, Australia, South Korea, US, China, and India; Canada planned to accede			Japan, US, China, Russia, India, Germany, Canada, UK, Italy, South Korea, France, Mexico, Australia, South Africa, Indonesia, Brazil, COP15 President Denmark, EU European Union (president & European Commission), and United Nations; LDCs and small island states planned to accede	
Specific activities	Kyoto Protocol, creation of new global warming framework	Flagship projects and efforts to better understand progress			Action plan and long-term objectives	
Principal agenda, areas of investigation	Principal agenda	Areas of investigation	Countries responsible		Areas of investigation	Countries responsible
			Primary	Secondary	Primary	Primary Secondary
	1. Unified vision (emission reduction targets or obligations)	1. Clean coal	Australia	China	1. Energy efficiency	US -
	2. Mitigation	2. Renewable energy & dispersed power systems	South Korea	Australia	2. Solar power	Germany -
	3. Adaptation	3. Generation & transmission of electrical power	US	China	3. Smart grid technology	South Korea Italy
	4. Transfer of technology	4. Iron & steel	Japan	India	4. Carbon capture, use, & storage	Australia UK
	5. Financial mechanism	5. Aluminum	Australia	US	5. Advanced vehicles	Canada -
	·Kyoto mechanism (clean development mechanisms [CDM], joint implementation [JI], forests, air & marine transport)	6. Cement	Japan	-	6. High-efficiency and lower-emissions coal technologies	Japan Italy
	·Border tax adjustment, etc.	7. Coal mining	US	India	7. Wind power	Germany Denmark/ Spain Italy
		8. Construction & electrical appliances	South Korea	US	8. Bio-energy	Brazil

Source: Japanese and US government materials; compiled by DIR.

The APP and MEF have both formed task forces to formulate action plans for low-carbon technologies. These project teams' activities differ due to both constituent member nations and areas of investigations reflecting the timing of establishment.

The APP was established in 2005 and includes other major Asian carbon emitters (China, India), as well as Japan, Australia, South Korea, the US, and Canada. The creation of this alliance was quite remarkable given its contrast with G8 membership (Japan, US, Germany, Russia, Italy, France, Canada, and UK). The task force is responsible for examining clean coal and renewable energy sources, as well as energy conservation in steel, cement, and other industries. Japan chairs two working groups in charge of steel and cement.

When it was established earlier this year, the membership of the MEF included European nations in its ranks, unlike the APP. However, recently, representatives from least developed countries (LDCs) and small island states have also been admitted, thereby including the principal members of the Kyoto Protocol. The MEF task force is involved in energy conservation, smart grid technology, while also looking at such specific renewable energy sources as solar and wind separately. It looks like the MEF focuses on the development of industries likely to benefit from global warming measures. In keeping with the more pinpointed activities of the MEF, the face of the countries exerting leadership in the organization has also changed. Japan chairs a task force on more efficient use of and emissions cuts for coal.

Since industry is also involved in the APP, we compiled listed companies that belong to either the Japan Iron and Steel Federation (JISF) or the Japan Cement Association (JCA), given that Japan is responsible for these areas (Chart 4).

Japanese companies' experience in Asia should prove invaluable if (1) the new COP framework deliberations become more industry centered, or (2) there is an increase in the number of developing nations seeking greater energy efficiency, similar to China's announced emission reduction targets.

Principal Listed Japanese JISF and JCA Member Companies							Chart 4	
Code	Company	Sector	Share price 26 Nov 09 (Y)	Market cap 26 Nov 09 (Y bil)	Prospective P/E		P/B	Dividend yield
					FY09 (X)	FY10 (X)	Actual (X)	FY09 E (%)
3332	JFE Shoji Holdings	Wholesale trade	282	66.8	7.0	4.5	0.69	1.8
4042	Tosoh	Chemicals	210	126.2	36.1	12.6	0.82	2.9
4043	Tokuyama	Chemicals	489	171.0	24.4	15.5	0.73	1.2
4061	Denki Kagaku Kogyo	Chemicals	365	184.6	20.5	15.4	1.22	1.6
4208	Ube Industries	Chemicals	213	215.0	30.7	15.4	1.25	0.9
5232	Sumitomo Osaka Cement	Glass & ceramics products	135	57.7	115.4	38.5	0.46	3.0
5233	Taiheiyo Cement	Glass & ceramics products	99	94.1	Loss	188.2	0.51	0.0
5401	Nippon Steel	Iron & steel	323	2,198.7	Loss	16.9	1.29	0.0
5405	Sumitomo Metal Industries	Iron & steel	221	1,062.1	Loss	59.0	1.29	2.3
5406	Kobe Steel	Iron & steel	149	464.1	Loss	16.6	1.01	0.0
5407	Nisshin Steel	Iron & steel	130	129.3	Loss	10.1	0.70	0.8
5411	JFE Holdings	Iron & steel	2,935	1,803.4	60.1	14.3	1.34	0.5
5440	Kyoei Steel	Iron & steel	1,688	75.8	10.2	8.7	0.62	2.4
5449	Osaka Steel	Iron & steel	1,516	64.1	16.9	16.0	0.55	1.3
5451	Yodogawa Steel Works	Iron & steel	333	61.3	Loss	34.1	0.47	3.0
5463	Maruichi Steel Tube	Iron & steel	1,638	154.0	32.1	28.0	0.82	1.7
5471	Daido Steel	Iron & steel	285	123.8	Loss	31.0	0.81	0.0
5481	Sanyo Special Steel	Iron & steel	351	58.7	195.5	13.0	0.70	0.0
5482	Aichi Steel	Iron & steel	374	74.4	Loss	13.5	0.77	1.3
5486	Hitachi Metals	Iron & steel	768	281.5	281.5	21.7	1.52	1.6
5541	Pacific Metals	Iron & steel	581	113.7	17.5	16.2	1.16	1.5
5563	Nippon Denko	Iron & steel	523	57.8	Loss	20.6	1.31	0.6
5631	Japan Steel Works	Machinery	1,039	386.0	22.1	21.4	3.72	1.2
5711	Mitsubishi Materials	Nonferrous metals	209	267.3	Loss	11.6	0.72	0.0
6326	Kubota	Machinery	769	988.9	23.8	19.4	1.62	1.8
8015	Toyota Tsusho	Wholesale trade	1,195	423.1	18.4	16.9	0.76	1.3
8031	Mitsui	Wholesale trade	1,168	2,136.5	17.8	12.6	1.03	1.2
8053	Sumitomo	Wholesale trade	860	1,075.5	9.4	8.0	0.75	2.1
8078	Hanwa	Wholesale trade	277	58.6	8.1	7.3	0.59	4.3

Source: Toyo Keizai, JISF and JCI Websites; compiled by DIR.

Note: Companies listed in order of stock code.

E: Toyo Keizai estimates as of 26 Nov 09.

Japan's future relationship with COP

Finally, it is worth taking a look at risks for Japan if an agreement cannot be reached in the next round of COP meetings. While it is premature to make any bold pronouncements when there is little inkling what the new framework will be, as the host country of the Kyoto Protocol, Japan bears a special obligation to reduce carbon emissions. At this point, an impasse in the talks could conceivably lead to CDMs and other credits plummeting in value. For companies engaged in CDM projects, any setbacks could deal a blow to companies whose fundraising plans are backed by CDM credit value from 2013 after the expiration of the Kyoto Protocol.

Another issue is the possibility that sanctions cannot be imposed on countries that fail to meet the emissions limits set forward by the Kyoto Protocol. In the event that Kyoto targets are missed, an amount equivalent to 1.3 times the overshoot to emissions will be added to the next period, a plan establishing how future targets are to be met is to be submitted, and obtaining credits via emissions trading will be prohibited. In effect, consequences for non-compliance already assume the following carbon emissions framework will provide for a specified time period. The situation is, of course, is not helped by the fact that emission targets are not legally binding.

An international accord in COP15 would have the following implications for Japan.

Greenhouse gas reduction targets will entail the same response on Japan's part regardless of whether it they are tied to COP or MEF. That being the case, the sooner Japan gets started on tackling the problem, the more experience it will have and the faster it can make headway in reducing carbon emissions. In this way, Japan's response to climate change need not be fettered to COP.

This calls into question the need for a new accord to replace the Kyoto Protocol. The current framework requires Japan—an energy-efficient country—reduce greenhouse gases by 6%, a goal that brought the most complaints from industry. Indeed, the damage to the economy from carbon emission reductions is undeniable.

Aside from just creating international obligations, COP15 meetings will provide Japan with a forum to exchange views and seek common ground with representatives from future high growth economies of Africa and South America, even though they are not MEF members. In this way, we see this meeting as beneficial from a long-term perspective. In addition, the worldwide drive to create low-carbon infrastructure to counter global warming should spotlight Japan's acumen in energy conservation and recycling that it has developed as a resource-poor nation.

Taking a leadership role in the formulation of international rules has never been Japan's strong suit. Accordingly, if it wants to effectively advance emission reduction negotiations, it should concentrate on building up a track record in negotiations and projects in the APP, MEF, and other forums as a first step in laying the groundwork in global warming measures.

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- In some cases, our company also may charge a maximum of ¥ 2 million (including tax) per year as a standing proxy fee for our deposit of your securities, if you are a non-resident.
- For derivative and margin transactions etc., our company may require collateral or margin requirements in accordance with an agreement made beforehand with you. Ordinarily in such cases, the amount of the transaction will be in excess of the required collateral or margin requirements.
- There is a risk that you will incur losses on your transactions due to changes in the market price of financial instruments based on fluctuations in interest rates, exchange rates, stock prices, real estate prices, commodity prices, and others. In addition, depending on the content of the transaction, the loss could exceed the amount of the collateral or margin requirements.
- There may be a difference between bid price etc. and ask price etc. of OTC derivatives handled by our company.
- Before engaging in any trading, please thoroughly confirm accounting and tax treatments regarding your trading in financial instruments with such experts as certified public accountants.

* The amount of the trading commission cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

When making an actual transaction, please be sure to carefully read the materials presented to you prior to the execution of agreement, and to take responsibility for your own decisions regarding the signing of the agreement with our company.

Corporate Name: Daiwa Securities SMBC Co. Ltd.
Financial instruments firm: chief of Kanto
Local Finance Bureau (Kin-sho) No.109
Memberships: Japan Securities Dealers Association
Financial Futures Association of Japan