CARRY-OVER OF AAUS FROM CP1 TO CP2 – FUTURE IMPLICATIONS FOR THE CLIMATE REGIME

EXECUTIVE SUMMARY

A BRIEFING BY POINT CARBON
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Assigned Amount Units (AAUs) are emission rights that were introduced under the Kyoto Protocol. One AAU allows a country to emit one metric tonne of CO_2e. For the first Kyoto commitment period (2008-2012), each country with an emissions reduction commitment (Annex B) received AAUs that were equivalent to the number of tonnes it was allowed to emit during the Kyoto Protocol's first 5-year commitment period.

The Kyoto Protocol (Art. 17) allows Parties to trade AAUs. Countries whose emissions are above their Kyoto target can purchase AAUs from countries which have a surplus to help them meet their reduction obligations.

This report estimates the size of the AAU surpluses both from the first Kyoto commitment period (2008-2012) and the second commitment period. It provides an explanation and qualitative analysis of banking AAUs, including how they interact with the EU emissions trading scheme (EU ETS). The report also models the likely scale of the surplus based on projections of actual emissions at country level, and reports on its impact on the second commitment period under the Kyoto Protocol.

What is the scale of surplus from the first Kyoto commitment period?

We estimated the AAU gap or surplus of each Party in the first Kyoto commitment period (CP1) using the publicly-available reduction commitments as well as historical and forecasted input data. They include emissions, AAU transactions between parties, and purchases of CDM and JI offset credits. As the public knowledge on AAU and offset credit purchases is often opaque due to the confidential nature of these transactions, there is a certain degree of uncertainty associated with the data.

The balance of AAUs from CP1 stands at 12,637 Mt in surplus (see exhibit A). Excluding Canada, which has withdrawn from the Kyoto Protocol, the net surplus rises to 13,127 Mt.[1] This figure is over three magnitudes higher than the estimated demand of 11.5 Mt.

Under current Kyoto rules, only those countries that are participating in the relevant Kyoto Protocol commitment period with an emissions reduction target are eligible to trade AAUs. Countries that do not agree to a target under a possible second commitment period (CP2) under Kyoto Protocol, therefore, would not be able to trade AAUs. Since Russia has stated that it does not plan to join CP2, it will, under current rules, not be able to trade its CP1 surplus in CP2. This would remove 5.8 Gt CO_2e from the amount of CP1 AAU surplus that could be carried forward to CP2, leaving a CP1 total of 7.3 Gt CO_2e.

[1] Canada ratified the Kyoto Protocol in 2002, yet formally withdrew from the first commitment period in late 2011. This leaves it without any AAU allocation. If Canada had remained in CP1, it would have had an estimated shortfall of 502.5 million AAUs.

Exhibit A: Total AAU Surplus and Shortfall in CP1 by Country (Mt CO_2e)

COUNTRY	TOTAL AAU SURPLUS[2]
Russian Federation	5873.1
Ukraine	2593.5
Poland	751.5
Romania	669.0
United Kingdom	513.7
Germany	489.0
Japan	429.8
Bulgaria	317.8
France	263.1
Hungary	204.5
Czech Republic	132.1
Slovakia	105.6
Lithuania	102.1
Greece	85.4
Sweden	85.2
Spain	74.2
Australia	66.4
Portugal	61.8
Latvia	48.5
Belgium	48.0
Netherlands	40.2
Estonia	39.9
New Zealand	28.1
Ireland	22.6
Finland	20.5
Norway	20.1
Italy	16.6
Denmark	12.1
Luxembourg	10.5
Austria	5.5
Croatia	5.2
Slovenia	3.6
Liechtenstein	0.1
Total Surplus	**13139.1**
Net Surplus (total surplus minus total shortfall)	**13127.4**

COUNTRY	TOTAL AAU SHORTFALL
Monaco	0.0
Iceland	3.0
Switzerland	8.5
Canada	502.5
Total Shortfall	**514.0**
Total Shortfall without Canada	**11.5**

What is the status of the market for AAUs?

The first AAU transactions took place in 2008, since which time a total of 314 million AAUs have been contracted through 56 deals. All known AAU transactions were conducted through Green Investment Schemes, where the seller government agrees to tie the revenue to an investment plan to cut emissions or to support other environmental benefits.

Over the 2008-2011 period, AAUs have been traded in the range of €4-15/t, though the trend has been downward. In late 2011, most AAU contracts were heard to be concluded at around €6 per AAU. Point Carbon market interviews show the prices for AAUs were at the level of €2-3 earlier in the year, falling to less than €2 in mid-2012.

We expect transactions in AAUs to reach a figure of around 70 Mt CO_2e in the rest of this commitment period, of which 40 million may be transacted within 2012.

[2] In the case of EU Member States, the surplus from the ETS sector is estimated and included in the country total.

What does the EUA-AAU interaction mean for the EU?

An important element of the EU's strategy for meeting its Kyoto commitment is the EU Emissions Trading System (EU ETS). The EU ETS places a cap on emissions from the power sector and heavy industries, covering about 50% of total EU emissions.

EU governments issue EU Allowances (EUAs) and distribute (or auction) them to covered entities, and these EUAs can then be traded among companies.[3] To ensure consistency with the Kyoto Protocol, each EUA is equivalent to, and is shadowed by, a corresponding AAU in EU government national registries. The shadowing of EUAs is implemented for the 2008-2012 period in the central EU registry (Central Clearing Account of the Union Registry) where at regular intervals the AAUs are brought into balance with the cross-border flows of EUAs.

The EU ETS is expected to have a significant surplus of EUAs at the end of 2012, which we estimate to be 1.5 Gt. Companies can, according to EU regulations, carry over or 'bank' their surplus EAUs into the next phase of the EU ETS, which starts in 2013. In the event that the Kyoto rules on carrying over AAUs are changed so as to significantly restrict the use of AAU carry-over, the EU Member States may have to provide CP2 AAUs to shadow the EUA surplus from CP1. In theory a situation could arise in which firms in the EU ETS bank up to 1.5 billion EUAs from 2012 into the 2013-2020 period, but the EU Member States are not able to bank the corresponding number of AAUs from CP1 and may have to go to market to procure the extra AAUs.

Exhibit B: AAU Surplus in EU Member States in CP1 (Mt CO_2e)

EU MEMBER STATES	NON-TRADING SECTORS	EU ETS (ASSUMPTION)	TOTAL AAU SURPLUS
Austria	-13.9	19.5	5.5
Belgium	-12.7	60.7	48.0
Bulgaria	282.6	35.2	317.8
Czech Republic	51.9	80.2	132.1
Germany	308.1	180.9	489.0
Denmark	2	10	12.1
Spain	-100.1	174.2	74.2
Estonia	39.8	0.1	39.9
Finland	2.8	17.7	20.5
France	97.3	165.8	263.1
United Kingdom	421.4	92.3	513.7
Greece	33	52.4	85.4
Hungary	179.9	24.6	204.5
Ireland	-2.2	24.7	22.6
Italy	-91.4	108	16.6
Lithuania	82	20.1	102.1
Luxembourg	8	2.5	10.5
Latvia	35.9	12.6	48.5
Netherlands	-1.6	41.8	40.2
Norway	31.9	-11.8	20.1
Poland	626.5	125	751.5
Portugal	20.7	41.1	61.8
Romania	530.6	138.4	669.0
Slovakia	42.4	63.2	105.6
Slovenia	-1.3	4.9	3.6
Sweden	67.3	17.9	85.2
Total EU	**2640.8**	**1502.1**	**4142.9**

[3] Over the period 2008 to 2020 about 50% of the emissions reduction obligations can be met through offset credits from the Clean Development Mechanism (CDM) or Joint Implementation (JI), representing an amount between 1.6 to 1.9 billion tonnes of CO2e (Gt CO2e).

What is the scale of the CP2 surplus?

To calculate the surplus for a second Kyoto commitment (CP2), we assumed a commitment period of 2013 to 2020 and used declared targets for 2020 as well as emissions forecasts and expected carbon credit purchases. **We estimate the surplus of AAUs in the second commitment period to reach 3.6 Gt CO_2e (Exhibit C). In other words, the targets currently declared by countries likely to participate in CP2 are higher than expected business-as-usual emissions between 2013 and 2020.**

With the current rules allowing for full carry-over of AAUs, the surplus in the 2013-2020 period would therefore include the spare AAUs inherited from CP1, increasing the total surplus to 16.2 Gt. If Australia and New Zealand do not join CP2, the CP2 surplus could be as high as 4.1 Gt CO_2e, or 17.2 Gt CO_2e including the carry-over from CP1.

Exhibit C: CP2 Kyoto Protocol net shortfall, Gt CO_2e

	KYOTO TARGET[4]	EMISSIONS[5]	SHORTFALL	CREDIT USAGE[6]	NET SHORTFALL
EU Members	37.2	37.3	0.1	2.5	**-2.3**
Australia	3.8	4.8	1.1	0.6	**0.5**
New Zealand	0.4	0.6	0.1	0.1	**0.1**
Other	6.5	4.6	-1.8	0.0	**-1.8**
Total	**47.8**	**47.3**	**-0.5**	**3.1**	**-3.6**

What effect on existing 2020 targets?

Unless the level of ambition in CP2 is raised, CP2 will remain oversupplied even if no AAUs from CP1 are carried over to CP2. To estimate the potential impacts increased ambition levels could have on the CP2 market balance, two possible scenarios are assessed: the highest range of the Copenhagen pledges and a mid-point between the highest range and currently expected pledges.

Including the mid-point of the EU target range at -25% on 1990 by 2020, as well as -15% on 2000 by 2020 for Australia and -25% on 1990 by 2020 for New Zealand, the market would still be in surplus in CP2 by 800 Mt. This is before the CP1 surplus of 12.6 Gt is added.

Taking the high end of the range of targets proposed by the EU (-30% on 1990), Australia (-25% on 2000) and New Zealand (-20%), the CP2 balance is put into a net shortfall of 2 Gt. Again, this excludes the 12.6 Gt surplus from CP1.

[4] Point Carbon, February 2010, "Carbon Market Monitor: Submissions to the Copenhagen Accord", pg 5

[5] Various sources including Point Carbon, UNFCCC, national agencies, European Environment Agency, European Bank for Reconstruction and Development.

[6] Point Carbon, "Demand by 2020" (http://www.pointcarbon.com/trading/cpm/demanddetails/by2020/report/), accessed 1 August 2012

Conclusions

The projected emissions and the current level of pledges in CP2 demonstrate that it will be oversupplied even without CP1 carry-over. The effect differs from the short term to the long term.

In the short term, the effect on the wider carbon market in the short term is minimal. Because CP2 is oversupplied already, the presence of additional AAUs from CP1 would not make much practical difference in the shorter term - the market cannot absorb the additional surplus beyond the limits of the actual demand. Thus, a market oversupplied by 3.6 Gt (CP2 surplus only) would not behave much differently from a market oversupplied by 16.2 Gt (CP1 and CP2 surplus combined). With the current pledges and full carry over, CP1 surplus AAUs would therefore have little or no value to the majority of their holders. Australia and New Zealand appear to be the only notable exceptions, as they would be the only countries with a projected shortfall in CP2.

Most importantly, preservation of the AAU surplus might have considerable implications in the longer term. The presence of such large volumes of surplus AAUs in the Kyoto system raises legitimate questions about the current system design. The political and market implications cannot be ignored as the future of the Kyoto Protocol is negotiated. Current targets to 2020 are not expected to absorb the oversupply. Should the surplus of the first two commitment periods pass into the post-2020 system, then the prospect of an oversupplied market never recedes. The long-term targets should reflect that surplus or risk having their environmental integrity undermined.