# Carry-over of AAUs from CP1 to CP2

Future implications for the climate regime

A briefing by Point Carbon

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# Agenda

- Purpose of the study
- The issue at international level  in CP1
- The issue at European level in CP1
- The balance in CP2
- Methodology & sources

# Purpose of the study: to quantify CP1 AAU surplus, examine the effect on CP2

- CDM Watch commissioned a study on AAUs
- Study seeks to
  - Determine the scale of surplus AAUs,
  - Examine the rules for banking
  - Examine the implications at international level and for Europe
- Determining the scale requires some assumptions:
  - Reconciling EU ETS position by Member State with overall country position of Member State with regards to Kyoto target (2008-12)
  - Emissions forecasts to 2020 (n.b. not 2017)
  - Ignorant of cross-border transfers of EUAs 2008-12

# An AAU permits emission of 1tCO2e and is a tradable governmental unit under Kyoto Prot.

- Kyoto Protocol CP1 targets are expressed as a percentage reduction on a baseline year, as an annual average over 2008-12
- Countries have an Assigned Amount. They are represented by Assigned Amount Units = 1tCO2e
- AAUs are tradable within rules, and fully bankable into following commitment periods
- The EU devolved some of its target to the private sector in the EU ETS
  - Up to 2012: EU Allowance is shadowed by AAU
  - From 2013: AAUs decoupled from EUAs, but occasional reckoning to occur

# The issue at hand: CP1
# INTERNATIONAL LEVEL

# CP1 has a balance of 13 billion AAUs surplus

- Supply is fixed by the Annex B targets
  - Built-in surplus for many former EITs
- Demand has been eroded by:
  - US, Canada withdrawal
  - Europe: Economic recession means all MS are expected to be in surplus
    - Based on assumptions of EU ETS surplus divided by country
- Previous estimate of CP1 surplus was 9 billion
  - Point Carbon report in 2009 commissioned by CAN-E
  - data was not yet picking up financial crisis

# Surplus in the EU ETS puts all Member States in surplus, but Ru+Ukr hold 65%

- The ‘net shorts’ include Iceland, Monaco, Switzerland, totalling 11.5 *million* AAUs
- The ‘net longs’ include EEA plus Russia (5.9 *billion*) and Ukraine (2.6 *billion*)
- Japan, Australia, New Zealand come in as ‘net long’
- The calculation includes CER + AAU procurement
- The market balance for AAUs  plus price drops across carbon asset class has led to fall in prices – €0.5 heard – below cost for new reductions under GIS?

# The issue at hand: CP1
# EUROPEAN LEVEL

# EU ETS surplus moves all MS into surplus, on paper. NB ETS surplus can't be used for NTS

| ALL FIGURES 2008-12, ESTIMATES UNLESS MARKED "ASSUMPTION" | NON-TRADING SECTORS AFTER PROCUREMENT | 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** | **2,640.8** | **1,502.1** | **4,142.9** |

# The EU case we term a ‘technical surplus’ as MS may not be able to use for compliance

- Based on current rules, EUAs may be banked, therefore corresponding AAUs must be banked
- Taking the example of Austria to explain the data, *rounded to whole figures:*

| NTS TARGET* | EMISSIONS** | BALANCE | PUBLIC PROCUREMENT*** | AFTER PUBLIC PROCUREMENT | ETS SURPLUS* |
|---|---|---|---|---|---|
| 181 | 267 | 86 | 72 | 86-72=14 | 20 |

* Estimated

** Forecast

*** Market observation / public information

# The balance in CP2
# INTERNATIONAL LEVEL

# Copenhagen / Cancun targets for 2020 create new surplus with current expectations

- GDP developments have reduced emissions to below the reduction targets
- BAU projections and 2020 targets (lower end within range, eg -20%*1990 by 2020)
- Assume no Canada, Japan, Russia
- At low-end of targets: 3.6 billion **surplus**
- At mid-range of targets: 0.8 billion **shortfall**
- At high-end of targets: 2 billion **shortfall**
- All before CP1 surplus of 13 billion
  - Or 6.8 billion, excluding Japan and Russia

Business as usual projections, market balance calcs

# METHODOLOGY

# External sources used for projections, assumptions made for ETS surplus distribution

- Balance by country (NTS):

included in CP1 calc only

| Assigned Amount | Emission forecast | Shortage | Credit usage | AAU buy/sell | Net shortage |
|---|---|---|---|---|---|
| A | B | C = B - A | D | E | F = C – D - E |

- ETS sector is complex, no data available on net cross-border flows due to EUA trading. We include CER credits surrendered for compliance (~ a proxy for trading flows), but may differ due to transactions

| Allocation to MS | Emission forecast for installations in MS | Shortage | Credit usage | Net position before trading | Net shortage after trading |
|---|---|---|---|---|---|
| A | B | C = B - A | D | E=C-D | ? |

Hard to predict

# List of external sources

- Historical emissions for all countries:
  - Historical emissions 2008-2010: UNFCCC
- Emissions projections to 2020
  - EEA countries: European Environment Agency October 2011 “GHG trends & projections 2011 – tracking progress towards Kyoto and 2020 targets”
  - Australia: Treasury figures 2011
  - Japan: Institute of Energy Economics (IEEJ) 2011
  - NZ: MoE 2009
  - Russia: Academy of Sciences, IGES 2005
  - Ukraine: EBRD 2011
  - Canada: NRCan 2006

# CONCLUSIONS

- CP1 surplus of 13 billion tCO2e different scale to the demand for AAUs (surplus GtCO2e)

| CP1 | CP1+CP2 target status quo | CP1+CP2 target raised to mid-level | CP1+CP2 target raised to high-level | CP1+CP2 high (no Ru in CP2) | CP1+CP2 (with Ru, no ANZ in CP2) | CP1+CP2 (no RU, A NZ in CP2) |
|---|---|---|---|---|---|---|
| 13.1 | 16.6 | 13.0 | 11 | 5.6 | 17.2 | 11.2 |

- In short term, little impact on market
- In long term, surplus undermines price signals across whole carbon complex
- Europe: EU ETS projected to be oversupplied by 1.5 billion EUAs, a ‘technical reserve’

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# THANK YOU

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