

Supply of and Demand for Kyoto Credits



Mark C. Lewis
Director
DB Commodities Research



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The Kyoto targets of...

the EU-15 (m/T CO₂e)

Country	Kyoto target (allotted number of AAUs)	2004 GHG emissions excluding LUCF/LULUCF	Difference between kyoto target&2004 emissions	%of CO ₂ in GHG
Austria	68.4	91.3	-22.9	0.84
Belgium	134.8	147.9	-13.1	0.86
Denmark	54.4	68.1	-13.7	0.81
Finland	70.4	81.4	-11.0	0.85
France	568.0	562.6	5.4	0.74
Germany	982.5	1015.3	-32.8	0.87
Greece	136.8	137.6	-0.8	0.80
Ireland	60.8	68.5	-7.7	0.66
Italy	478.0	582.5	-104.5	0.84
Luxembourg	9.6	12.7	-3.1	0.94
Netherlands	198.7	217.8	-19.1	0.83
Portugal*	83.1	84.5	-1.4	0.78
Spain	326.5	427.9	-101.4	0.83
Sweden	75.1	69.9	5.2	0.79
UK*	656.8	659.3	-2.5	0.85
TOTAL	3903.9	4227.3	-323.4	

the other EU member states (m/T CO₂e)

Country	Kyoto target (allotted number of AAUs)	2004 GHG emissions excluding LUCF/LULU CF	Difference between kyoto target&2004 emissions	%of CO ₂ in GHG
Bulgaria	130.1	67.5	62.6	0.79
Czech Republic	176.6	147.1	29.5	0.87
Estonia	40.0	21.3	18.7	0.90
Hungary	114.9	83.1	31.8	0.72
Latvia	23.4	10.7	12.7	0.70
Lithuania	46.8	20.3	26.5	0.66
Poland*	530.5	386.4	144.1	0.82
Romania	243.9	154.6	89.3	0.75
Slovakia	66.3	51.0	15.3	0.83
Slovenia	18.6	20.1	-1.5	0.82
TOTAL	1391.1	962.1	429.0	

SOURCE: EEA; UNFCCC; Deutsche Bank Estimates

versus their actual 2004 GHG emissions

The Kyoto targets of...

Russia & Ukraine (m/T CO₂e)

Country	Kyoto target	2004 GHG emissions excluding LUCF/LULUCF	Difference between Kyoto target & 2004 emissions	% of CO ₂ in GHG
Russian Federation*	3040.1	2024.2	-1015.9	0.80
Ukraine	978.9	413.4	-565.5	0.77
TOTAL	4019	2437.6	-1581.4	

the other Kyoto countries (m/T CO₂e)

Country	Kyoto target	2004 GHG emissions excluding LUCF/LULUCF	Difference between Kyoto target & 2004 emissions	% of CO ₂ in GHG
Canada	560.1	758.1	-198.0	0.78
Iceland	3.6	3.1	0.5	0.73
Japan	1,186	1,355.2	-169.2	0.95
Liechtenstein	0.2	0.3	-0.1	0.88
Monaco	0.9	0.1	0.8	0.96
New Zealand	61.5	75.1	-13.6	0.45
Norway	50.6	54.9	-4.3	0.80
Switzerland	48.3	53.0	-4.7	0.85
TOTAL	1,911.3	2,299.8	-388.5	

*SOURCE: UNFCCC; Deutsche Bank Estimates

versus their actual 2004 GHG emissions

Selected industrialized countries' potential annual demand for Kyoto credits over 2008-12 (m/T CO₂e)

Country	Assumed Kyoto target	2010 emissions assuming 0.5% growth from 2004	Implied annual deficit
The EU-15	3,903.9	4355.7	451.8
Canada	560.1	781.1	221.0
Japan	1,186	1366.0*	180**
New Zealand	61.5	77.4	15.9
Norway	50.6	56.6	6.0
Switzerland	48.3	54.6	6.3
TOTAL	5,810.4	6,691.4	881

SOURCE: UNFCCC, Deutsche Bank Estimates; *Assumes 30m tonnes per year of reductions from carbon sinks

Implications for ETS Carbon prices over 2008-12

IF (i) it is cheaper to meet the cap by offsetting emissions in the EU via the purchase of CERs and ERUs than it is by reducing emissions domestically via the use of less carbon-intensive production methods,

AND (ii) always assuming that the companies in the ETS can get their hands on a sufficient number of CERs/ERUs, **THEN:**

→ The marginal price of CER/ERUs will set the price of EUAs

However, while we think that ETS Installations will look to buy as many CERs as possible over 2008-12, we also think it may simply not be possible for them to acquire all the allowances they need from outside the EU.

- Potential demand for CERs and ERUs from companies within the ETS is likely to be in the order of 300m/T a year, and potential demand from sovereign governments – excluding Canada – 300m/T a year.
- Competition for CERs and ERUs will therefore be fierce, and we therefore think that some industrial abatement in the ETS will be necessary to meet the cap.

Appendix 1

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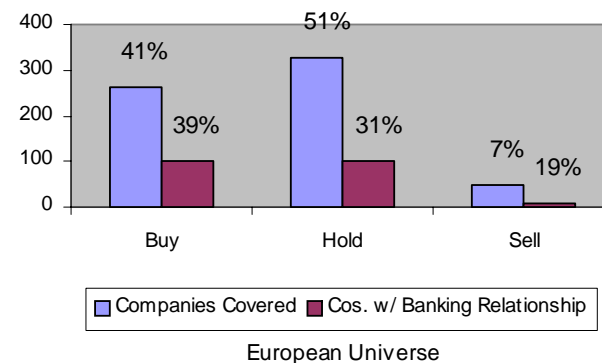
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