
Carbon Markets in Challenging Times

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Carbon Market Outlook 2009 – The Negative

- **Financial crisis adjustments**
 - Fewer banks
 - Struggling developers
 - No IPOs
- **Recession adjustments**
 - Less EU demand
 - Sell-off impacts
- **Policy uncertainty**
 - EU is clearer
 - US, Canada and Australia are stalled
- **Regulatory friction**
 - CDM approval trends are negative
 - Staff shortages, DOE problems cause delays



Carbon Market Outlook 2009 – The Positive

- **Copenhagen's impact**

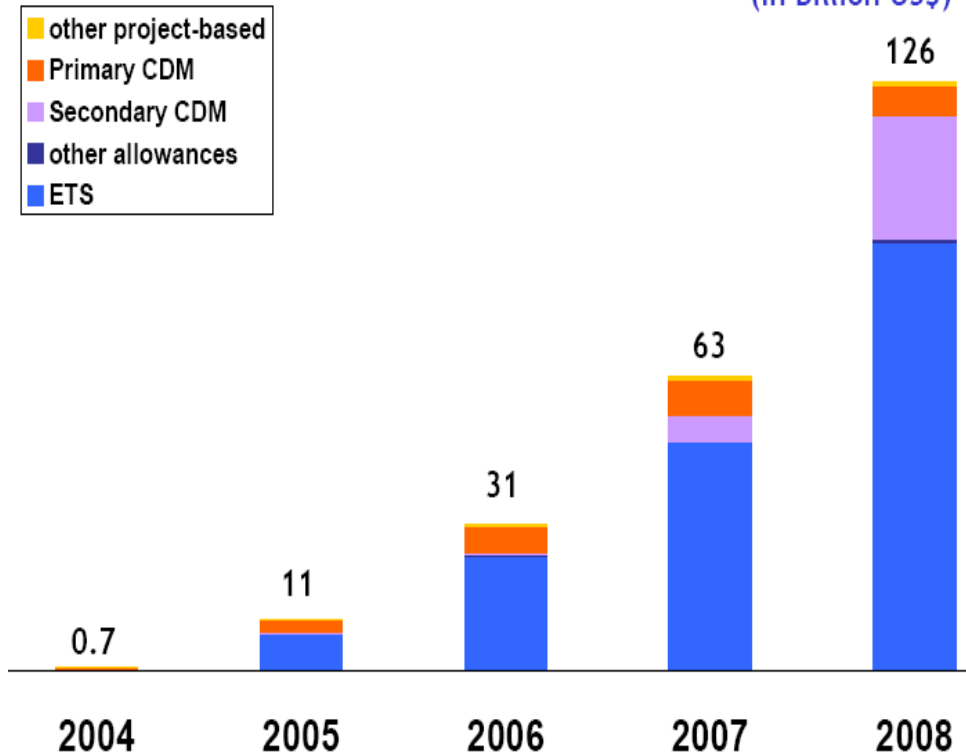
- Long term investment framework may come more into focus
- Strength of targets for developed countries
- Phase-in of developing country commitments
- Role of trading mechanisms

- **US Senate and Obama Administration actions**

- ACES would stimulate huge need for offsets (2 billion tonnes/year)
 - Existing instruments cannot meet this demand
 - New instruments needed
 - REDD and Sectoral-crediting need more definition
- Other cost containment policies may dampen demand
 - Banking, borrowing
 - Strategic reserves
- Market oversight rules will impact its formation

Global Carbon Market Growth

(in Billion US\$)



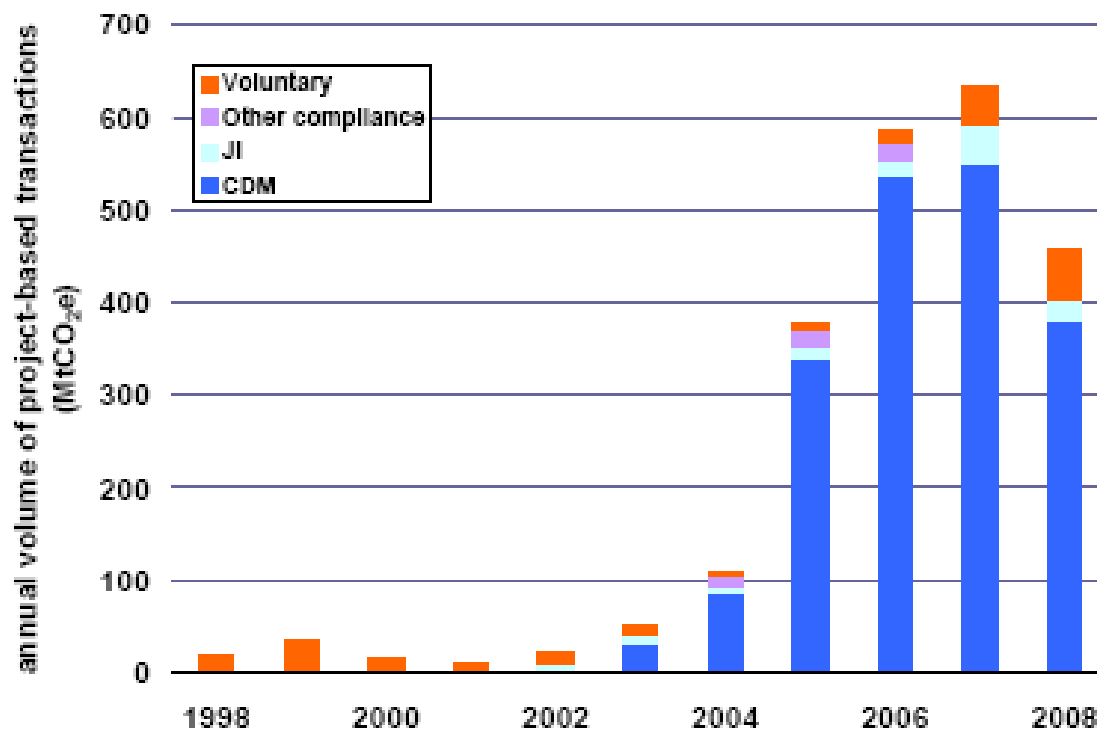
Market Values 2008

EU Allowances:	\$92 billion
Primary CDM:	\$6.5 billion
Secondary CDM:	\$26 billion
Other:	\$1.5 billion
Total Market:	\$126 billion

Source: World Bank, State and Trends of the Carbon Market 2009 (May 2009)

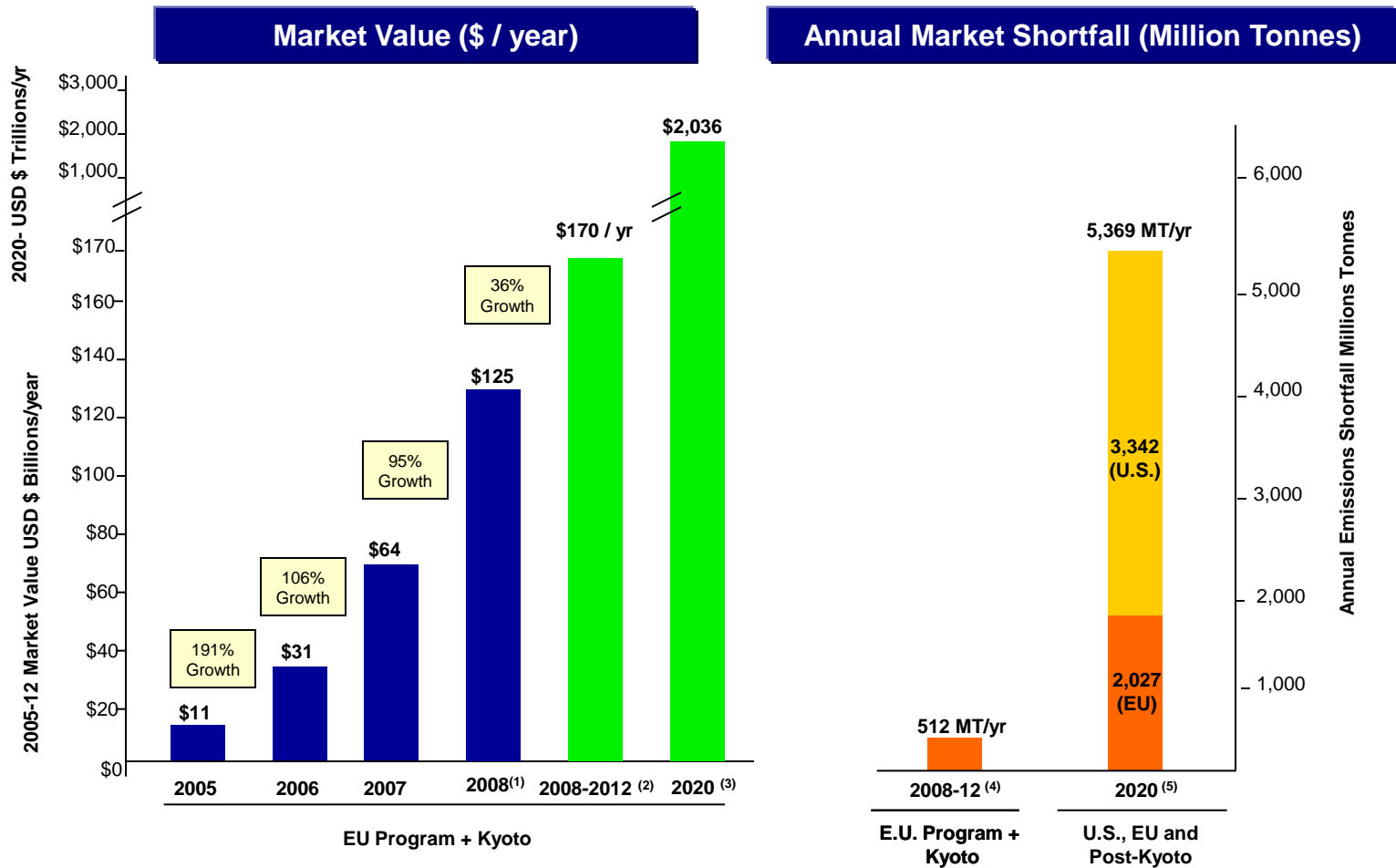
CDM/JI Market Trends

Figure 2: Annual Volumes (MtCO₂e) of Project-Based Emission Reductions Transactions (vintage up to 2012)



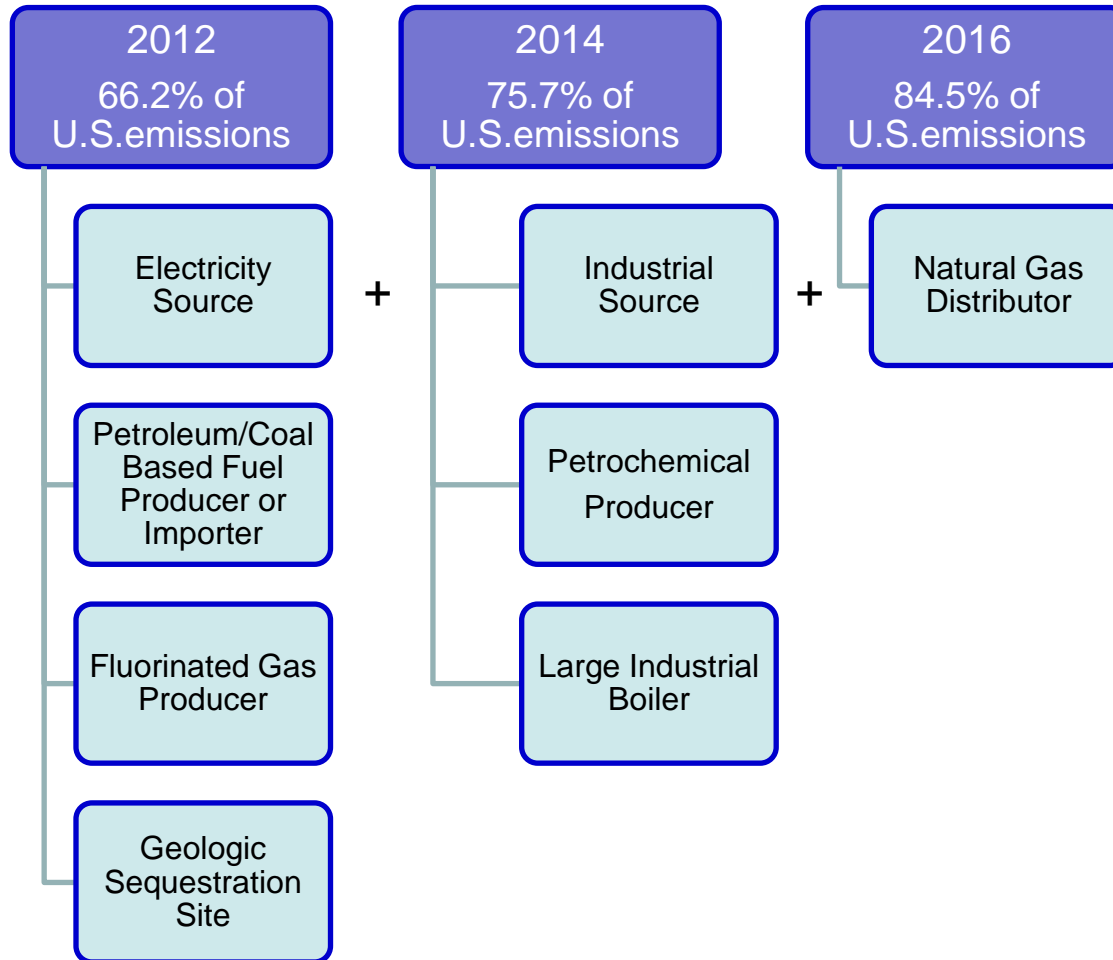
Source: World Bank, *State and Trends of the Carbon Market 2009* (May 2009)

Current Carbon Market Value and Future Estimate

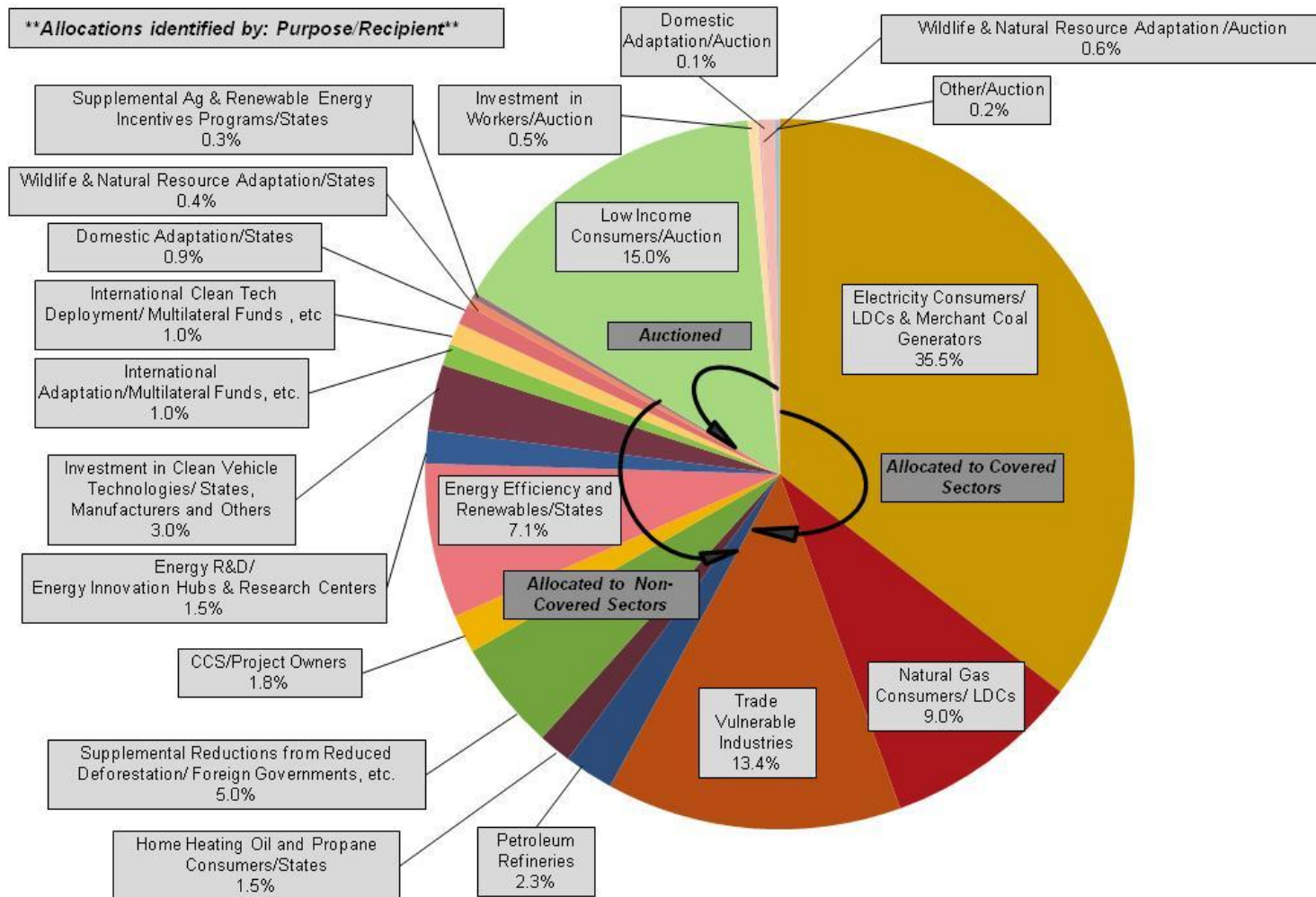


See endnotes 1-5 for data sources and assumptions.

Waxman-Markey Compliance Obligations



Waxman-Markey H.R. 2454 – Allowance Allocation 2016



Note: Allocations to the strategic reserve are not included in the chart. The allocation %s in the pie chart match those in the bill, which are %s of the total cap adjusted to exclude allocations to the strategic reserve. The reserve receives an allocation equal to 1% of the cap in 2016.



ACES: Compliance Options

Compliance Option	Max % of Compliance Obligation	Notes
Banking	Unlimited	
Borrowing	Unlimited	From following compliance year
Borrowing	15%	2-6 year allowance borrowing (8% interest per annum)
Strategic Reserve allowances	20%	<ul style="list-style-type: none"> • \$28 initial reserve price • Price increases by 5% plus inflation 2013-2014 • +60% over average allowance price 2015 - 2050
Domestic and international offsets	Appx. 30% total <ul style="list-style-type: none"> • 15% domestic • 15% international 	<ul style="list-style-type: none"> • Aggregate 2 billion ton annual limit • Administrator can increase limit of international offsets to 1.5 billion/ year
International allowances	Unlimited	(e.g., EUAs)



For additional information

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References

1. 2005-08 data derived from World Bank's 2006, 2007, 2008 and 2009 "State of the Carbon Market" reports.
<http://siteresources.worldbank.org/NEWS/Resources/State&Trendsformatted06May10pm.pdf>
http://carbonfinance.org/docs/Carbon_Trends_2007- FINAL - May 2.pdf
<http://carbonfinance.org/docs/StateoftheCarbonMarket2006.pdf>
[http://wbcarbonfinance.org/docs/State Trends of the Carbon Market 2009-FINAL 26 May09.pdf](http://wbcarbonfinance.org/docs/State_Trends_of_the_Carbon_Market_2009-FINAL_26_May09.pdf)
2. Based on 2 billion EU allowances (EUA), EUA turnover estimate of 2.5, average EUA estimate of €20, a turnover estimate of 7 for secondary CER transactions, and an average price of €12 for Kyoto compliance offsets.
New Carbon Finance estimates the EU + Kyoto carbon market value will reach \$120 billion in 2009 and \$265 billion in 2012 (estimates not shown in the graph). "Carbon Industry Intelligence April 2009: Carbon Market Round Up Q1 2009".
<http://www.newcarbonfinance.com/?p=about&i=freereports>
Point Carbon estimates the value of the carbon market will be €62.6 billion in 2009 (\$82.6 billion based on a \$1.32/€1 exchange rate as of January 30, 2009); "CMA Outlook for 2009" February 19, 2009.
3. The \$2 trillion estimate of market value in 2020 represents a New Carbon Finance's estimate based on "Carbon Industry Intelligence April 2009: Carbon Market Round Up Q1 2009".
4. Natsource Advisory and Research Services estimate of planned purchases and gap in 2008-12 between emissions and Kyoto targets for the EU, Japan and other industrialized Kyoto signatory countries (excluding Canada), and EU ETS demand for surplus CERs to be banked into Phase 3, based on various data sources, as of Q1 2009.
5. Based on Natsource Advisory and Research Services estimated emissions shortfall created under U.S. legislation and expansion of EU ETS in 2020. This does not include emissions shortfalls from Japan and Canada. Estimates of U.S. demand based on gap between BAU emissions (Annual Energy Outlook 2009) and grandfathered allocation to covered sectors in the American Clean Energy and Security Act of 2009, H.R.2454. Estimates of EU ETS demand based on gap between BAU emissions and target under the amended EU ETS Directive for Phase 3, as of Q1 2009.