

The Right to Development in a Climate Constrained World

Implications for the International Climate Regime
and Domestic Action

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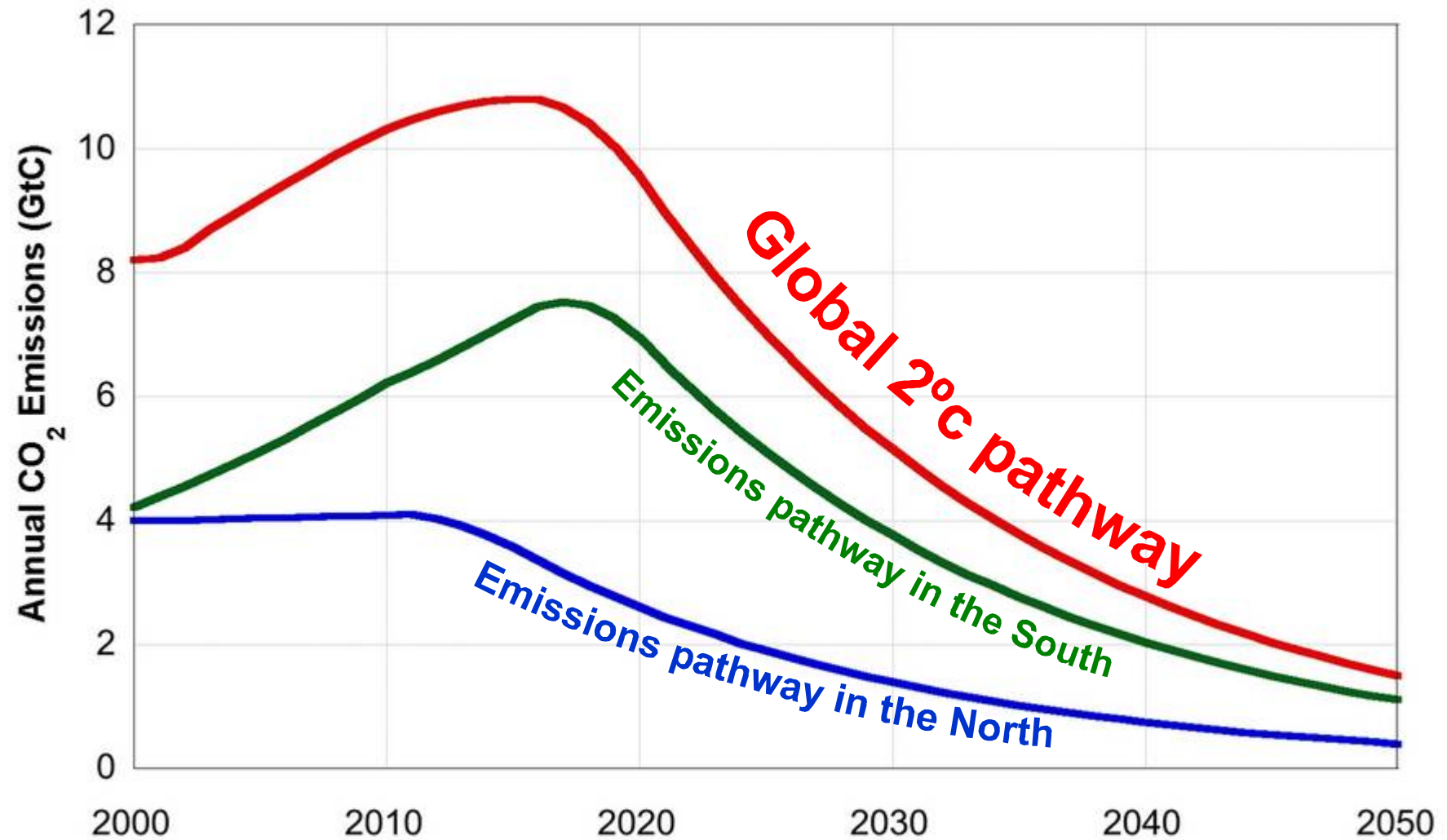
Stockholm Environment Institute

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The climate challenge: a thought experiment



What kind of climate regime can enable this to happen...?

... in the midst of a development crisis?

- 2 billion people without access to clean cooking fuels
- More than 1.5 billion people without electricity
- More than 1 billion have poor access to fresh water
- About 800 million people chronically undernourished
- 2 million children die per year from diarrhea
- 30,000 deaths each day from preventable diseases

A viable climate regime must...

- Ensure the rapid mitigation required by an **emergency climate stabilization program**
- Support the deep, extensive adaptation programs that will **inevitably be needed**
- While at the same time safeguarding the ***right to development***

A “Greenhouse Development Rights” approach to a global climate accord...

- Defines and calculates national obligations with respect to a *development threshold*
- Allows those people with incomes and emissions *below* the threshold to *prioritize development*
- Obliges people with incomes and emissions *above* the threshold (in both the North and South) to *pay the global costs* of an emergency climate program

Development threshold?

What should a “Right to Development” preserve?

Traditional poverty line: \$1/day? ...\$2/day?

(World Bank’s “destitution line” and “extreme poverty line”)

Empirical analysis: \$16/day

(“Global poverty line,” after Pritchett/WB (2006))

For indicative calculations, consider development threshold of 125% × global poverty line

⇒ **About \$20/day** (\$7,500/yr) PPP-adjusted

Estimating National Obligations

Define National Obligation (national share of global mitigation and adaptation costs) based on:

Capacity: resources to pay w/o sacrificing necessities

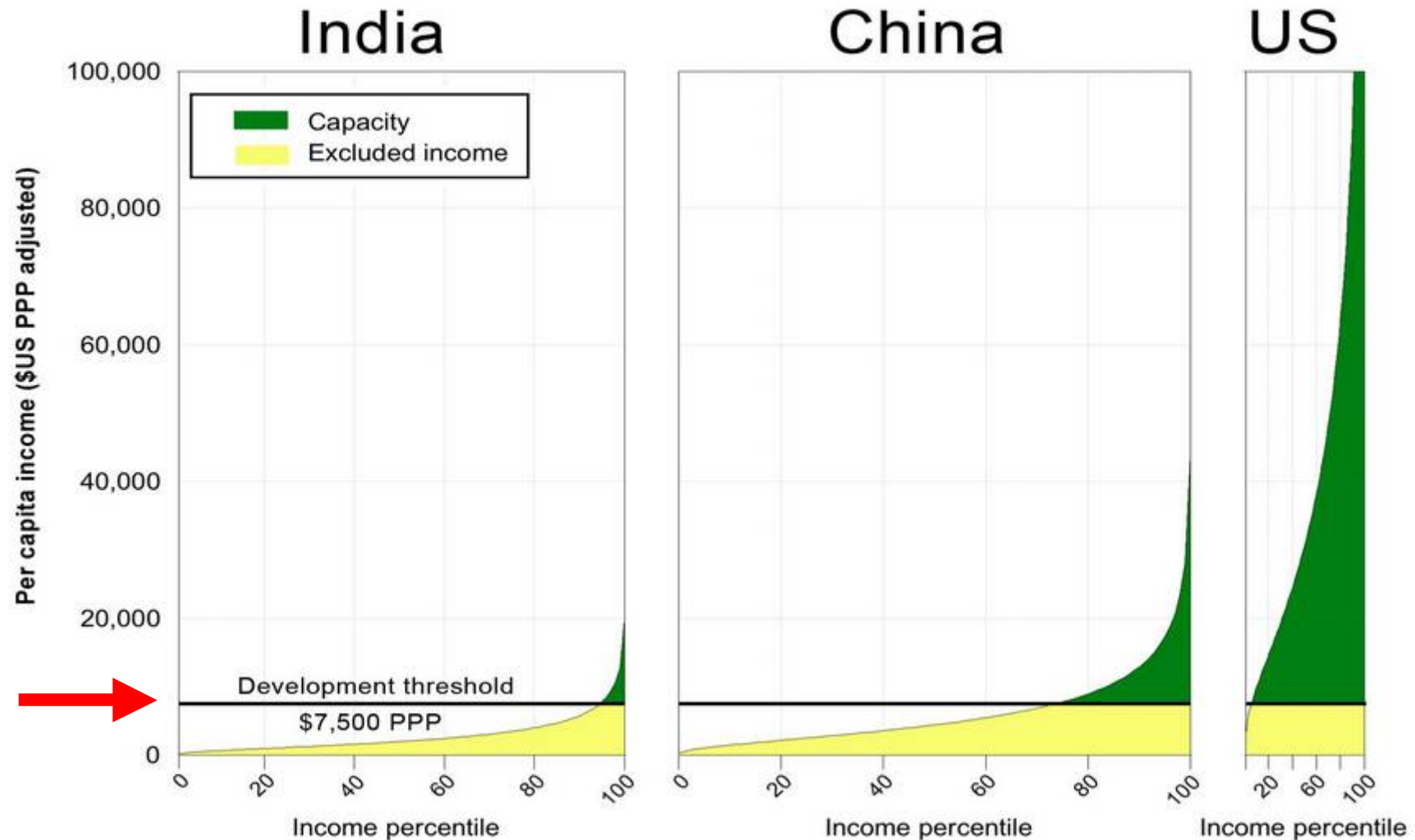
We use income (PPP), **excluding** income below the \$7,500/yr development threshold

Responsibility: contribution to the climate problem

We use cumulative CO₂ emissions, **excluding** “subsistence” emissions (i.e., emissions corresponding to consumption below the development threshold)

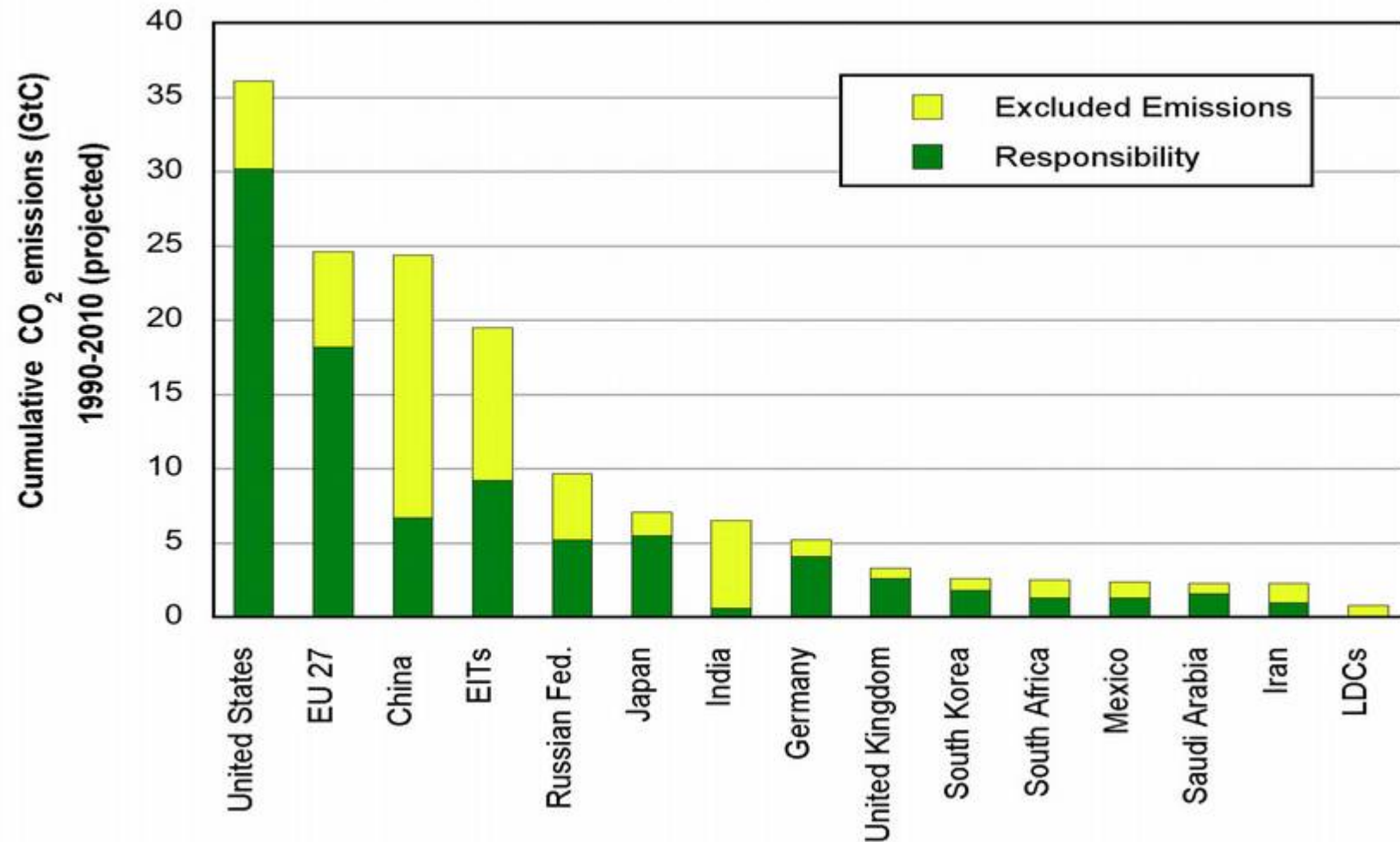
Income and Capacity

National income distributions showing portion of income (in green) that can be considered “capacity”



Emissions vs. Responsibility

Cumulative fossil CO₂ (1990 to 2010, projected) , showing portion that can be considered “responsibility”



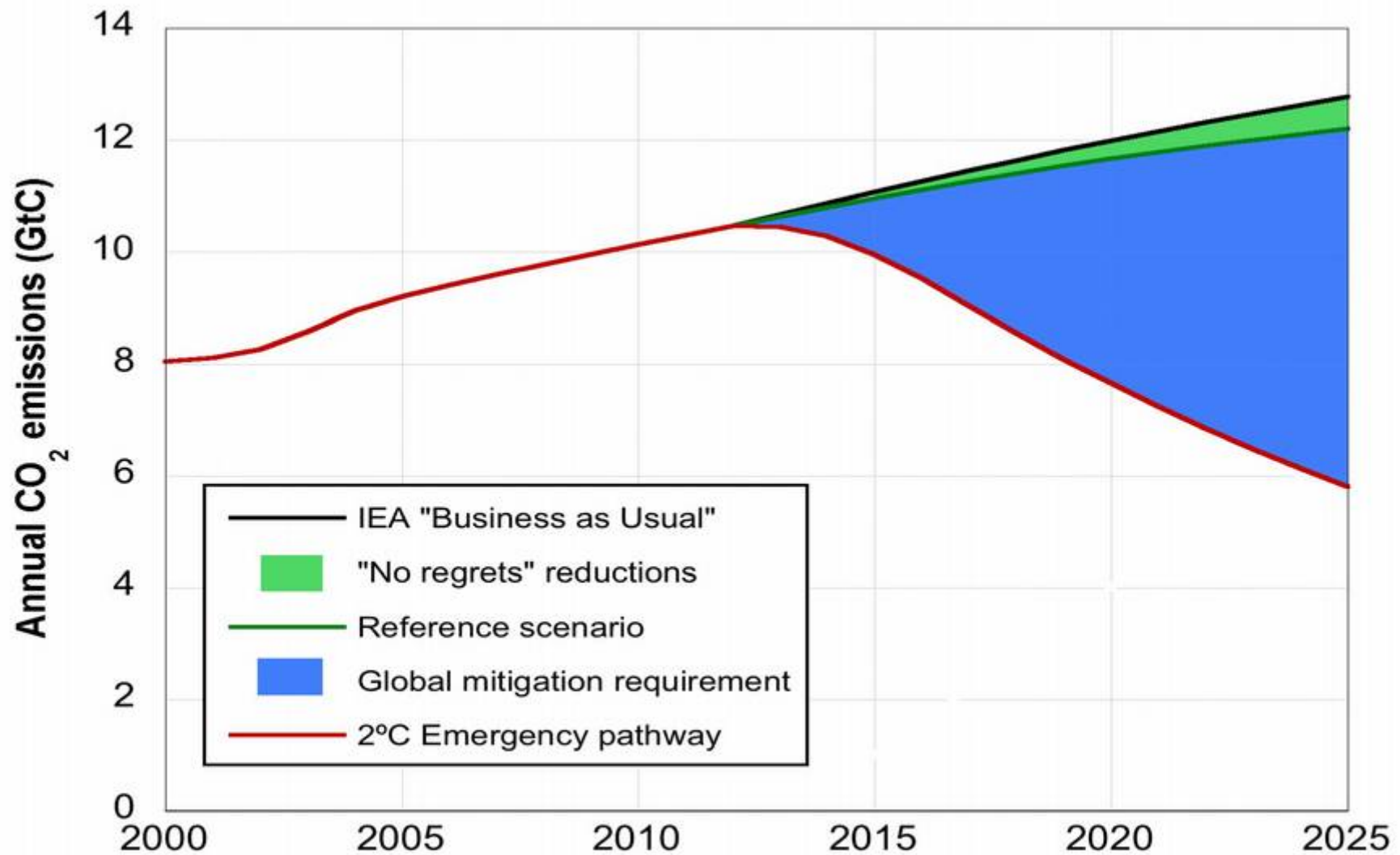
National Obligations based on capacity and responsibility

	Population %	Income %	Cumulative Emissions 1990-2010 %	Responsibility
United States	4.6	20.7	23.3	
EU (27)	7.2	21.6	15.9	
United Kingdom	0.9	3.1	2.1	
Germany	1.2	4.1	3.4	
Russia	2.0	3.2	6.3	
Brazil	2.9	2.8	1.4	
China	19.7	12.5	15.7	
India	17.2	5.2	4.2	
South Africa	0.7	0.7	1.6	
LDCs	12.5	1.5	0.6	
<i>Annex 1</i>	18.8	57.2	56.5	
<i>Non-Annex 1</i>	81.2	42.8	43.5	
<i>All High Income</i>	15.1	55.2	50.9	
<i>All Middle Income</i>	46.7	36.4	42.2	
<i>All Low Income</i>	38.2	8.5	6.9	

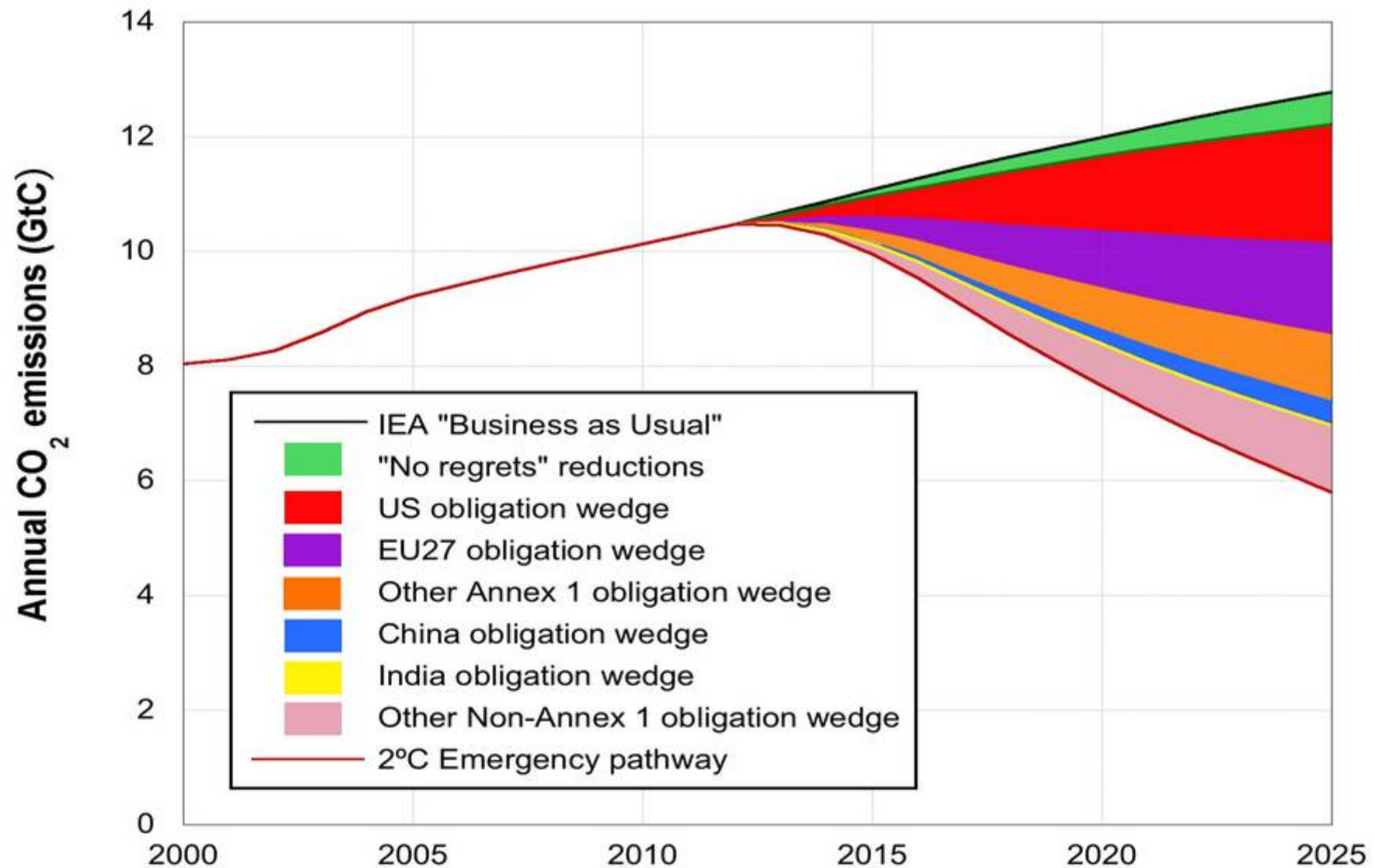
What are the cost implications?

Source	Annual Cost (billions)	Notes
<i>Adaptation</i>		
World Bank (2006)	\$10-40	Costs to mainstream adaptation in development aid
Oxfam International (2007)	> \$50	Costs in developing countries
UNFCCC Secretariat (2007a;2007b)	\$49-171	Adaptation costs in 2030 (sum marized in Table 65, p. 198)
UNDP (2007)	\$86	Adaptation costs in 2015
<i>Mitigation</i>		
UNFCCC Secretariat (2007a;2007b)	\$380	Costs in 2030 to return emissions to 2007 levels. (sum marized in Table 64, p. 196).
IPCC AR4 (2007) (SPM Table 7.)	< 3 %	Costs as percentage of Gross World Product in 2030 for stabilizing in 445 - 535 ppm CO ₂ eq range.
Stern (2007)	1 % (± 3 %)	Costs as percentage of Gross World Product through the 2050 for stabilization in the 500-550 ppm CO ₂ eq

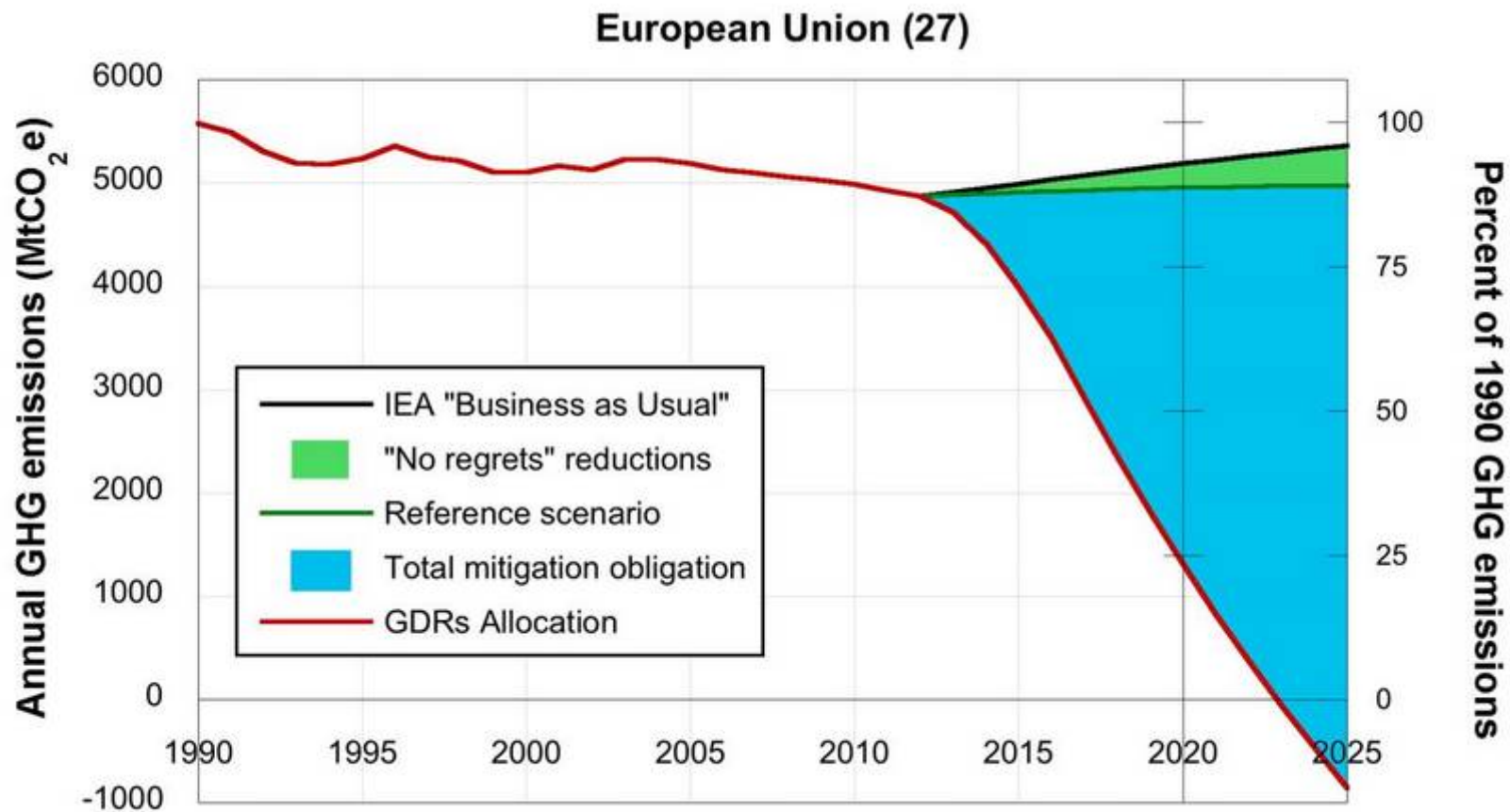
Global Mitigation Burden



National “Obligation Wedges”

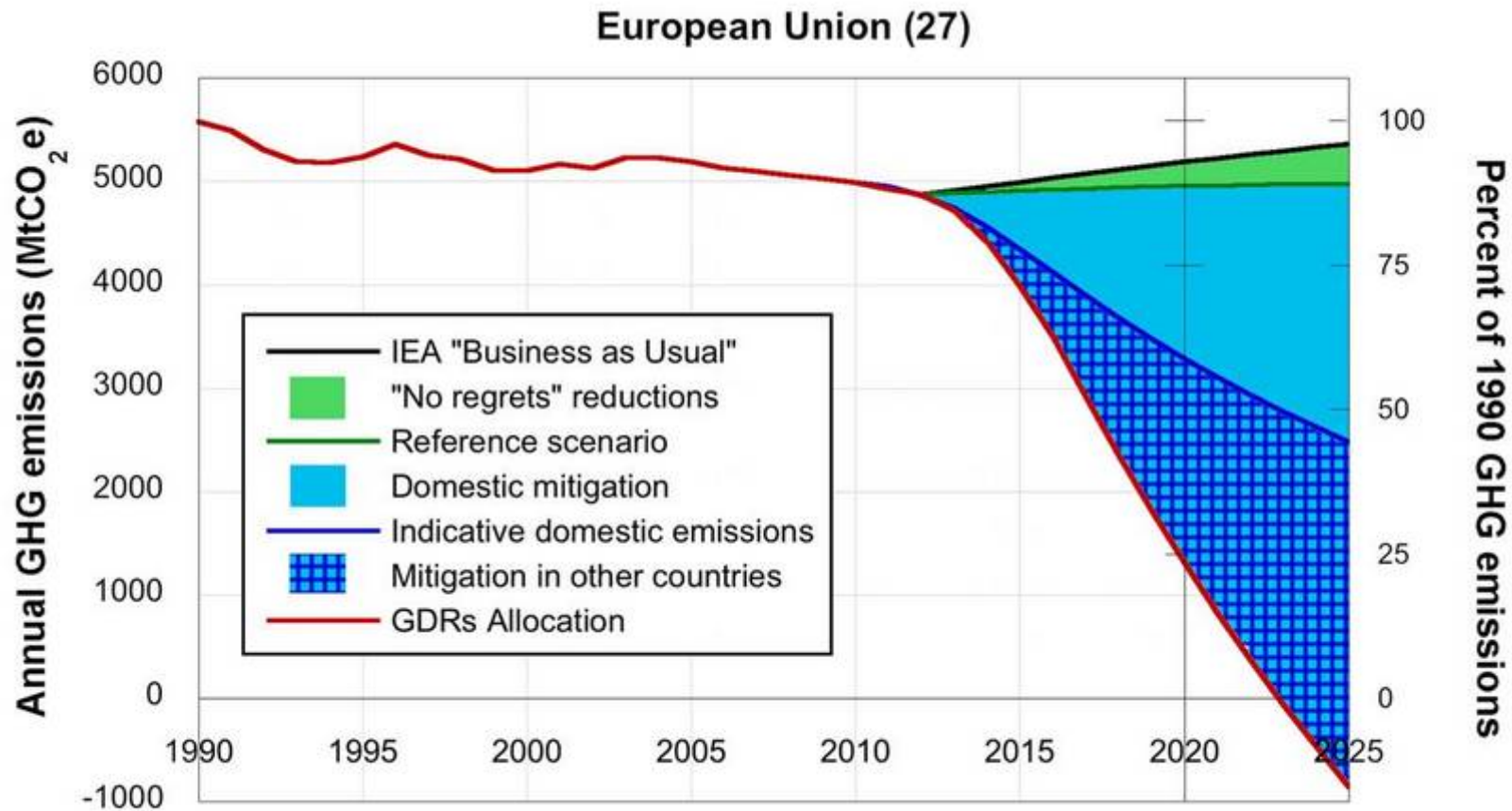


Implications for European Union



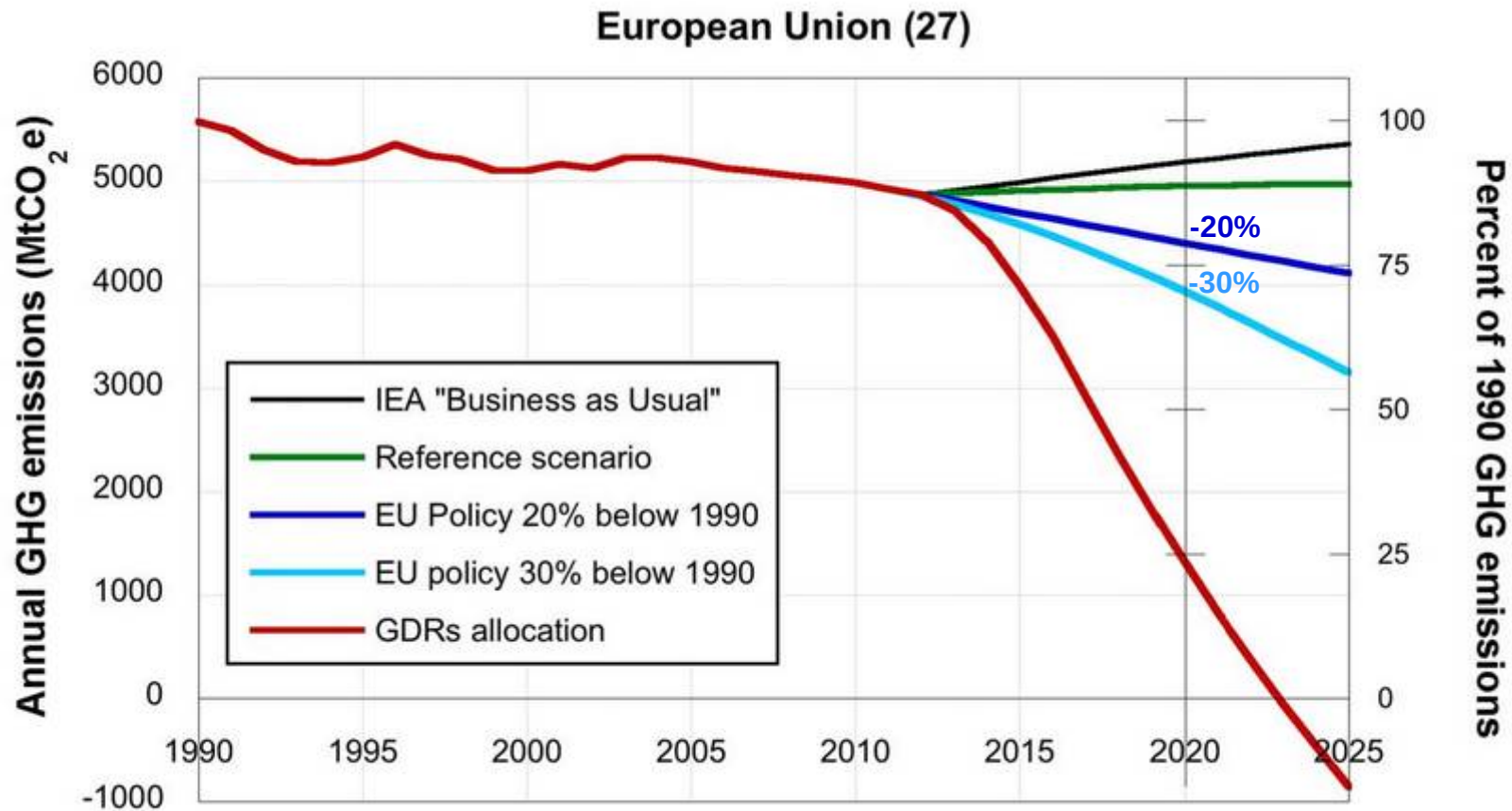
The EU's mitigation obligation amounts to a reduction target exceeding 100% by 2025.

Dual obligation: domestic reductions & international reductions



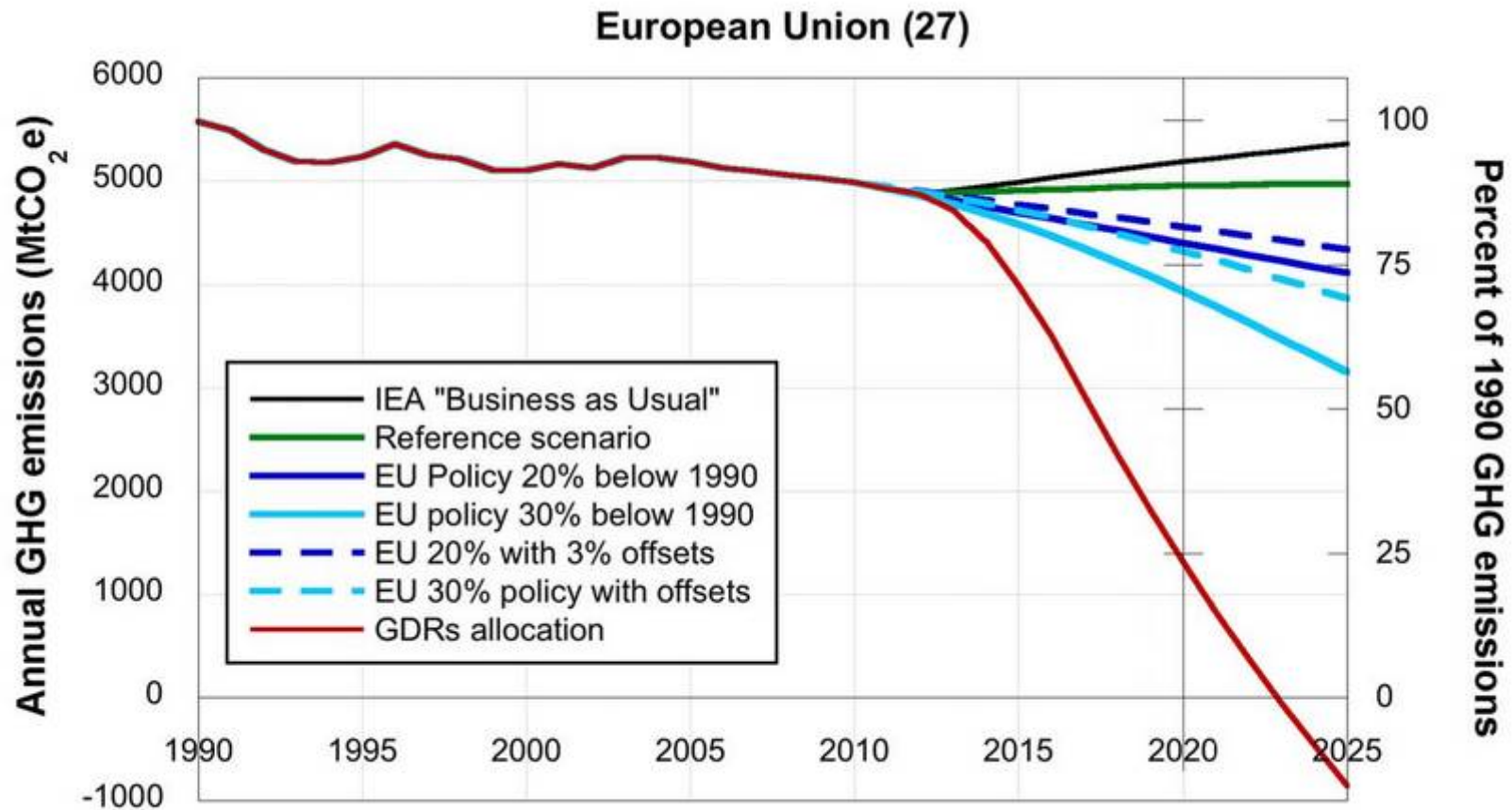
Physical domestic reductions are one part of the necessary EU commitment. The second part is support for international reductions.

Comparing to the proposed EU targets

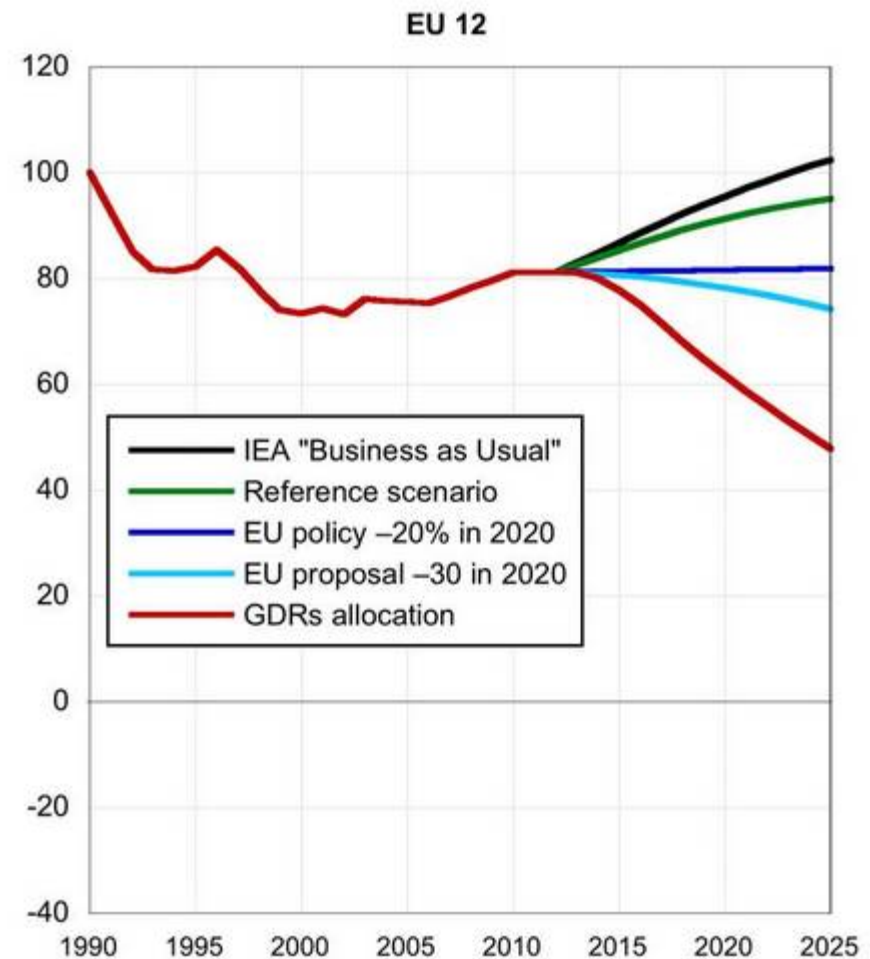
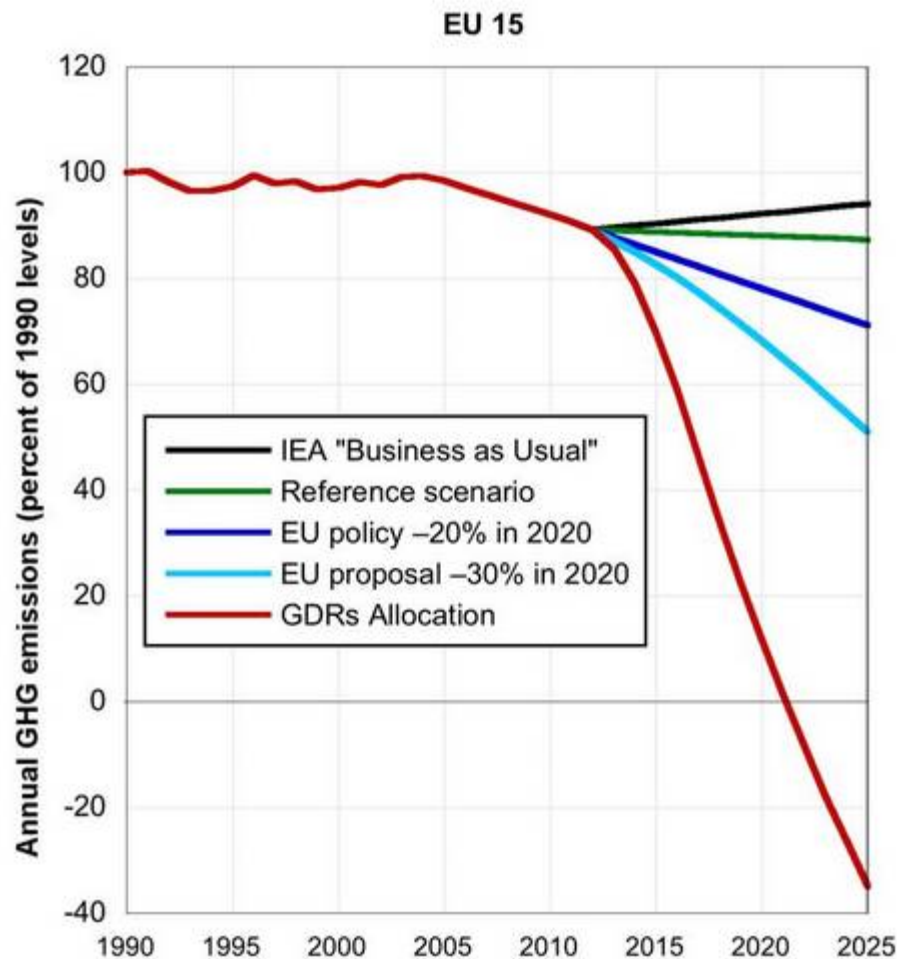


This obligation exceeds considerably the proposed EU targets of 20% unilaterally and 30% with an international agreement.

Proposed EU targets including offsets

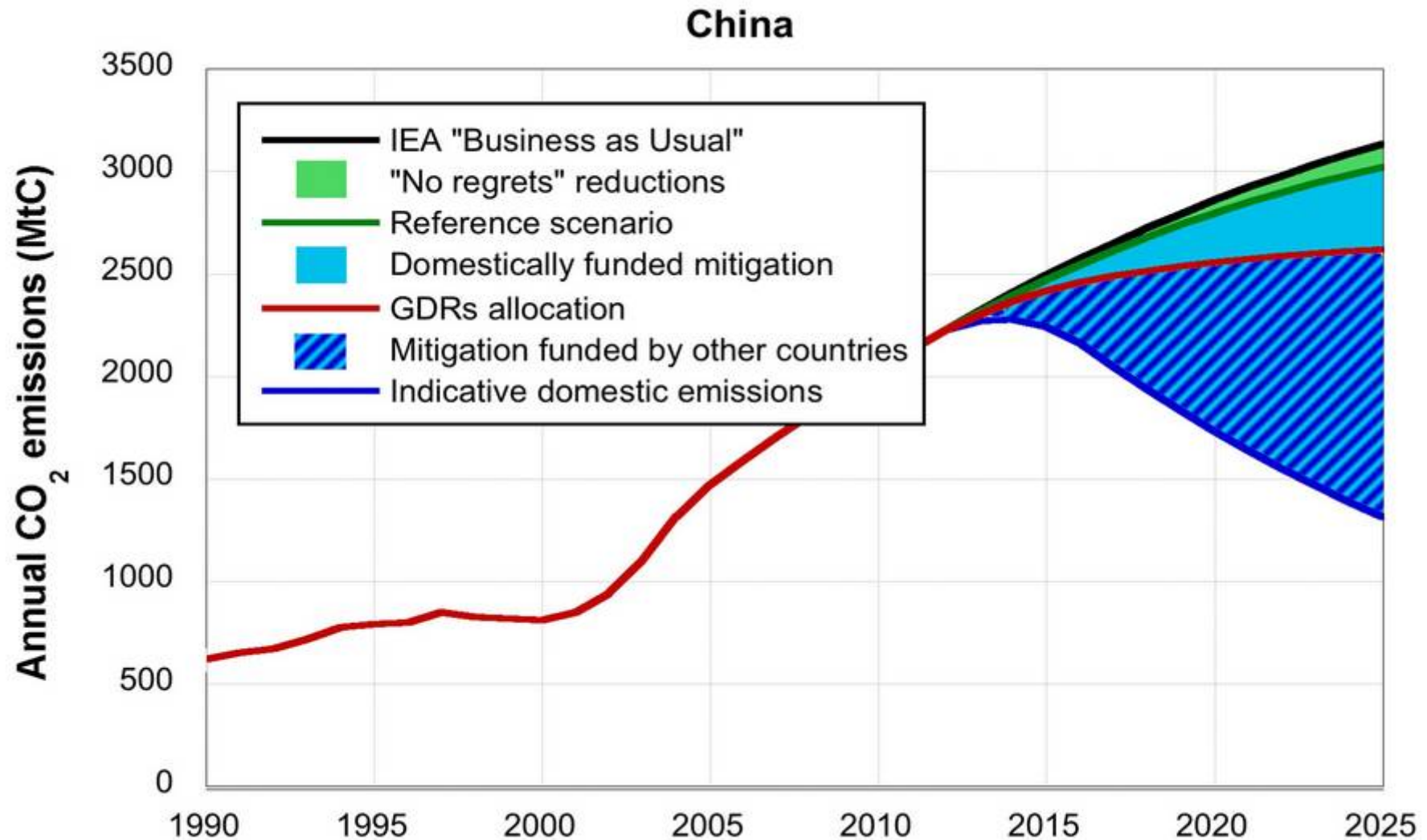


EU15 and New Member States (EU12)



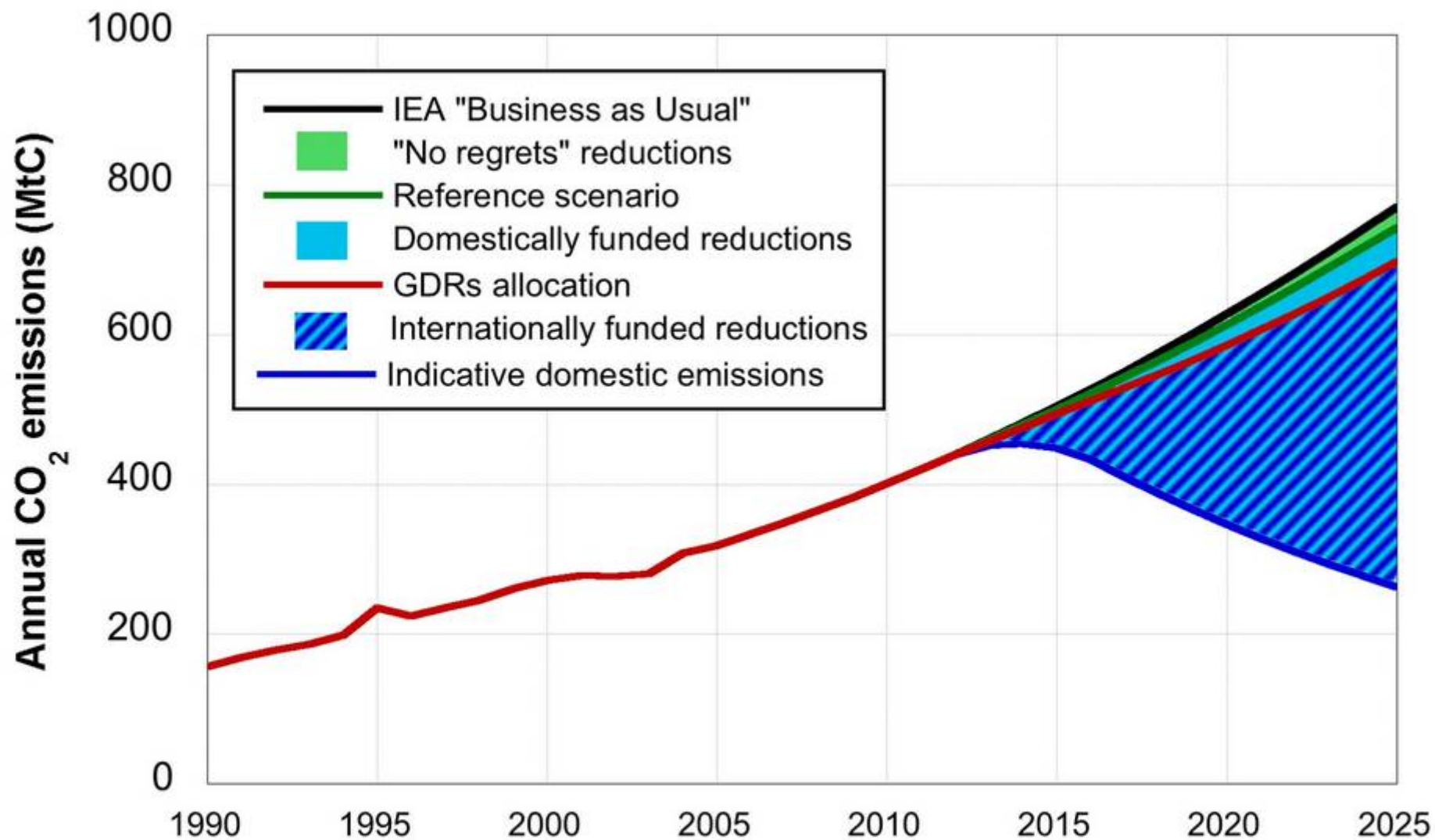
Significant variation among EU member states

Implications for China



The majority of the reductions in the South are driven by industrialized country reduction commitments.

Implications for India



Final Comments

- The scientific evidence is bracing. Carbon-based growth is no longer an option in the North, *nor in the South*.
- A rigorous, binding commitment to major North-to-South flows of technology and financial assistance is necessary. *Domestic reductions in the North are only half of the North's obligation.*
- A commitment from the consuming class in the South is also necessary.
- Realistic? Yes... after a period of trust-building.
- The alternative to something like this is a weak regime with little chance of preventing catastrophic climate change
- This is about politics, not only about equity and justice.

The Right to Development in a Climate Constrained World: ***The Greenhouse Development Rights Framework***



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For further information:

full report available

www.ecoequity.org/GDRs

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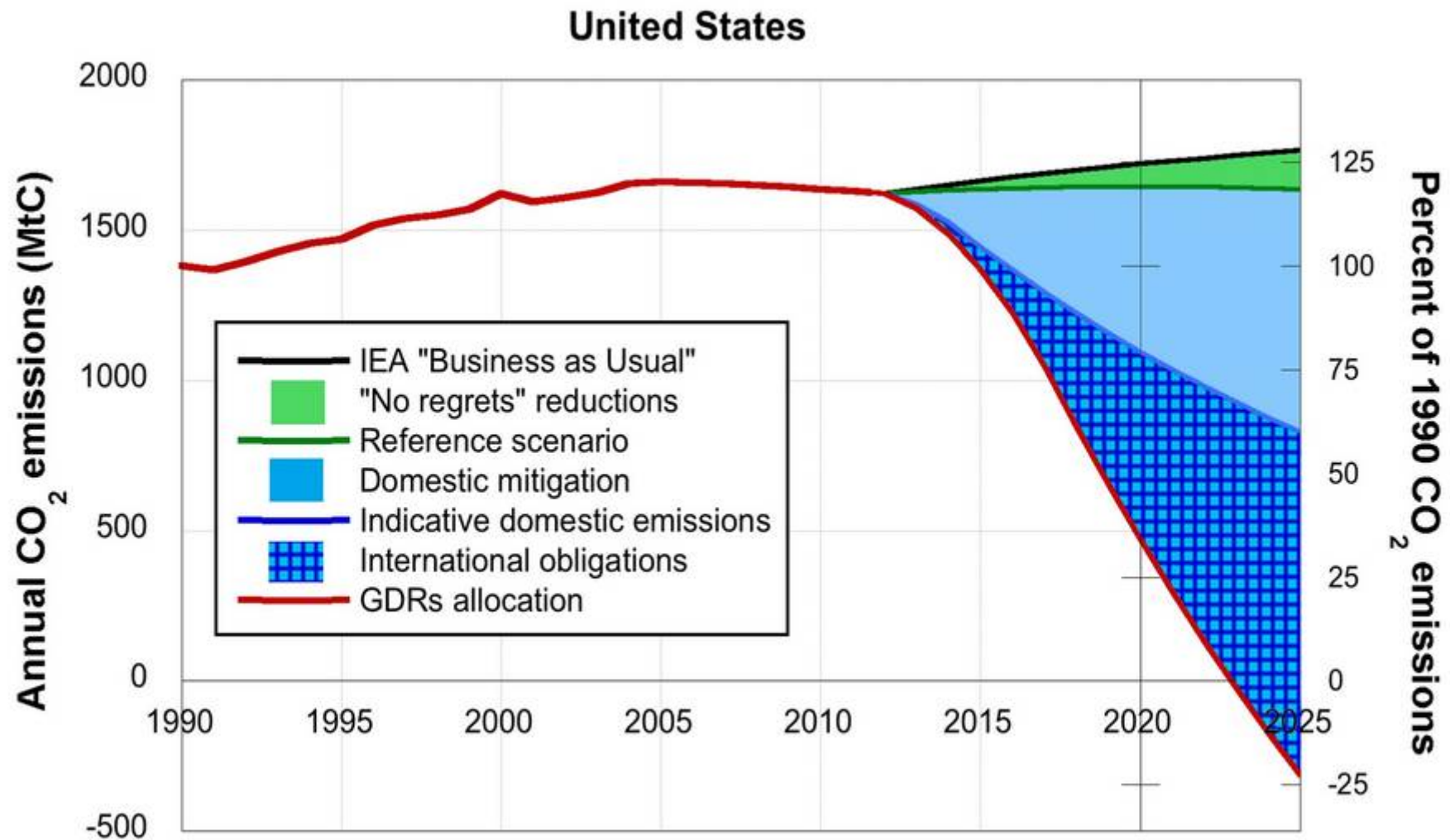
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Dataset and tool for examining
the calculations presented here
and exploring alternatives

gdrs.sourceforge.net

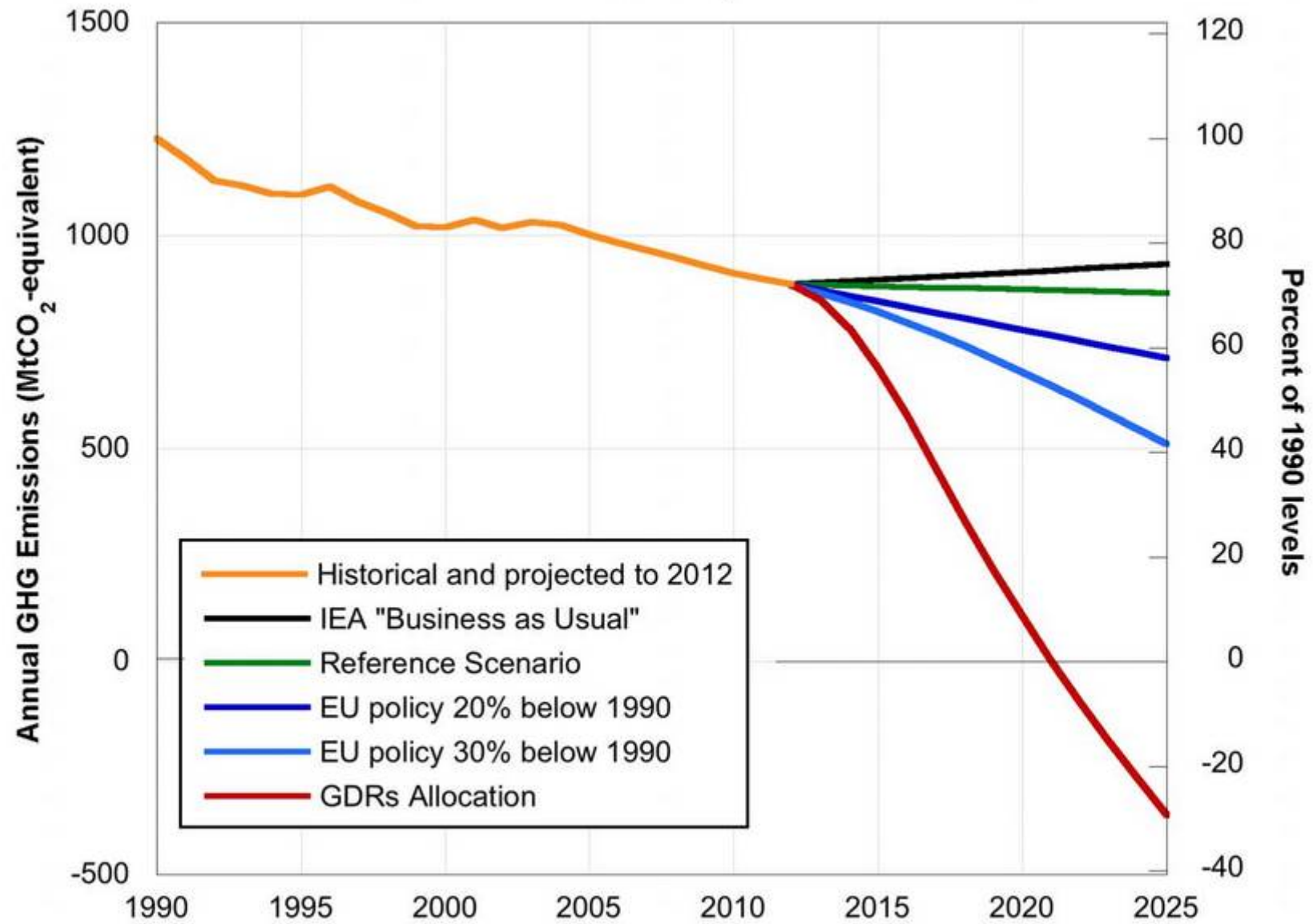


Implications for United States

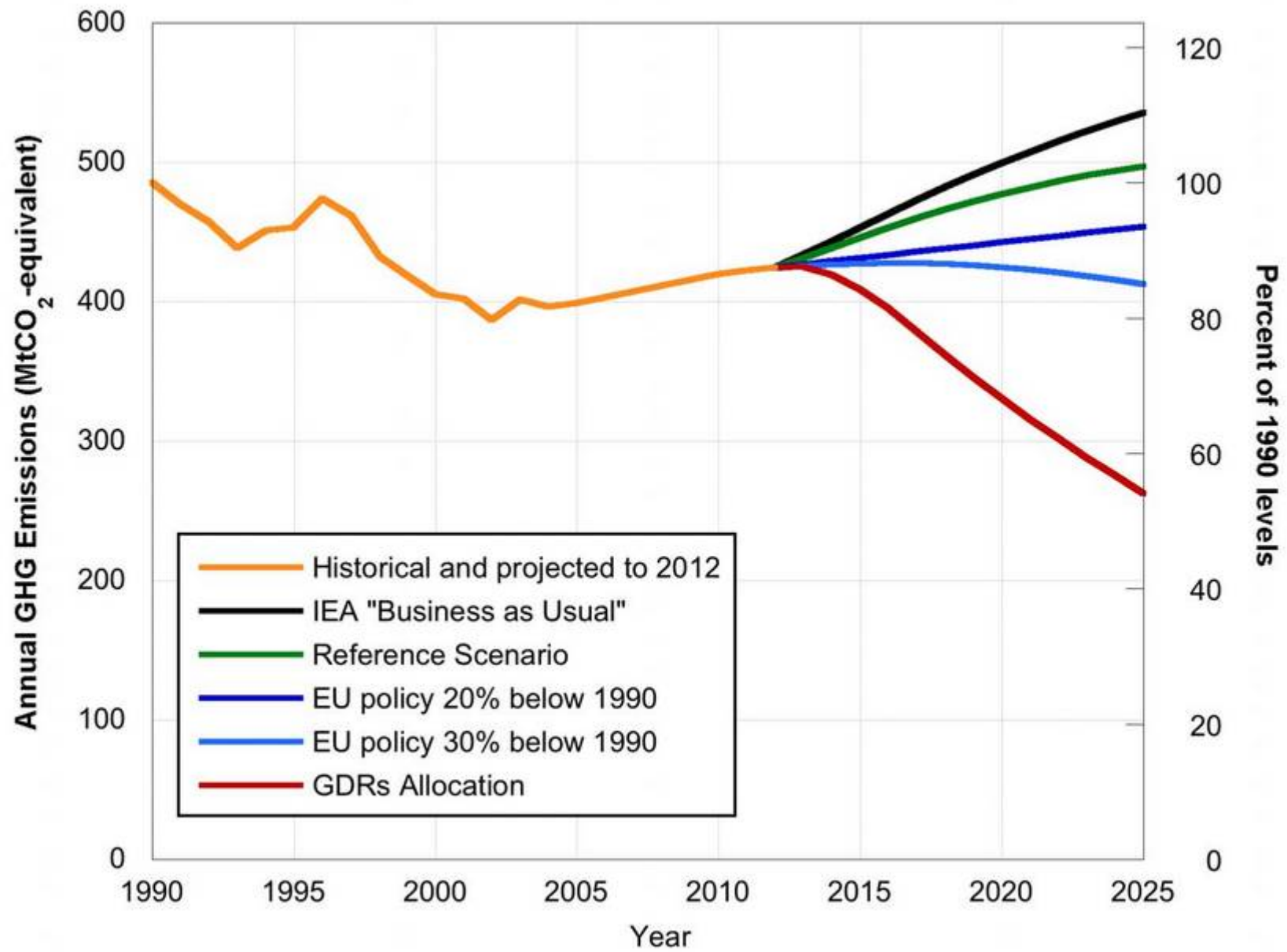


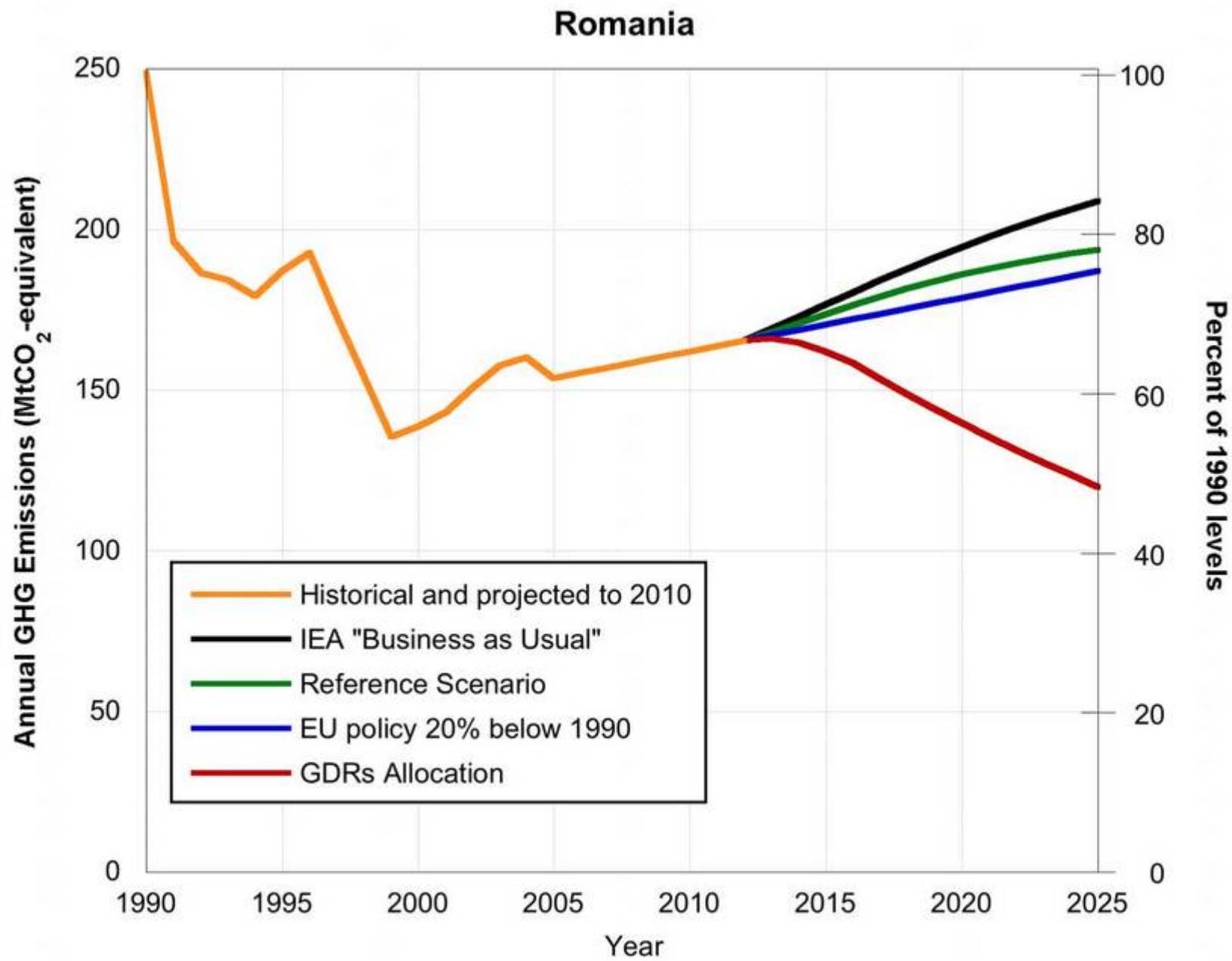
Physical domestic reductions (~50% by 2025) are only part of total US obligation. Rest would have to be met internationally.

Germany



Poland





Sensitivity: development threshold

