

Toward Low-Carbon Development --- A Proposal for a “Global Mitigation Treaty”

FAN Gang, Dr. Prof.

Economists 50 Forum
National Economic Research Institute

I. The political economy Issues of the low-carbon economic development

- To recognize the “rights of development”;
- To agree on the “common but different responsibilities” ;
- To make a better international cooperation

2. The Rights of Development

- People of developing countries, have contributed little to the climate change, while around 80% of carbon dioxide historically accumulated in the atmosphere was emitted by the developed countries.
- The ultimate cause of carbon emission is consumption demand, not product supply. If we target on production only but not the high consumption life style show-cased by rich countries, we will never solve the problem.

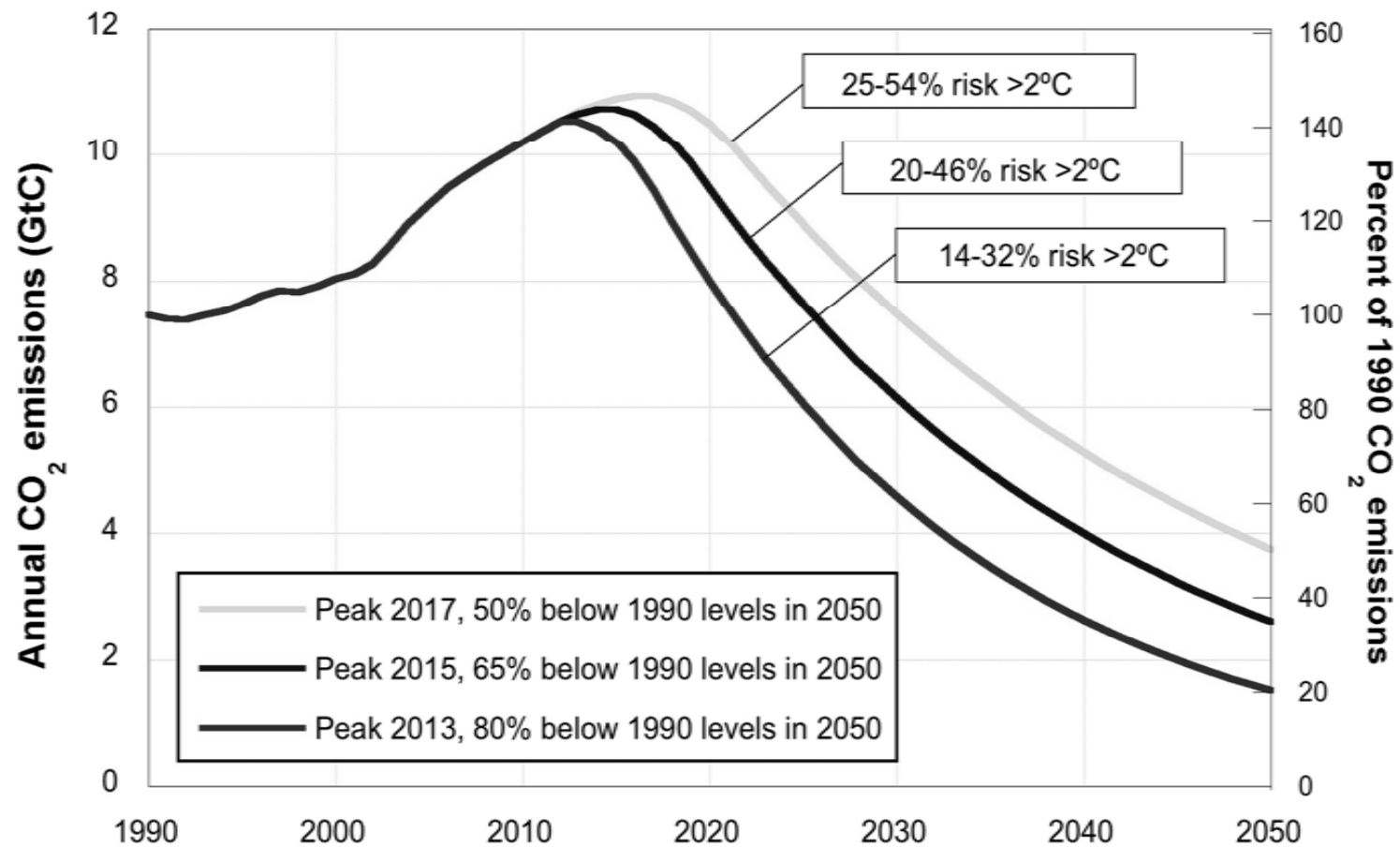
Carbon Emission by various Definitions (CO₂, Ton)

Country	Historical Accumulated total emission (% of World Total)	Current (2005) Annual actual emission (mil. ton)	Current (2005) annual actual emission per capita (ton)	Historical accumulated actual emission per capita (ton)	Historical accumulated consumption emission per capita (ton)
EU	26.91 (2) *	3864	7.86	1137(英国)	1186 (英国)
US	29.25 (1)	5783	19.49	1101	966
Japan	3.81 (7)			344	435
Romenia				318	144
China	8.24 (3)	5101	3.91	73	45
India	2.32 (9)	1148	1.05	24	35
World Everage	100		4.13	164	164

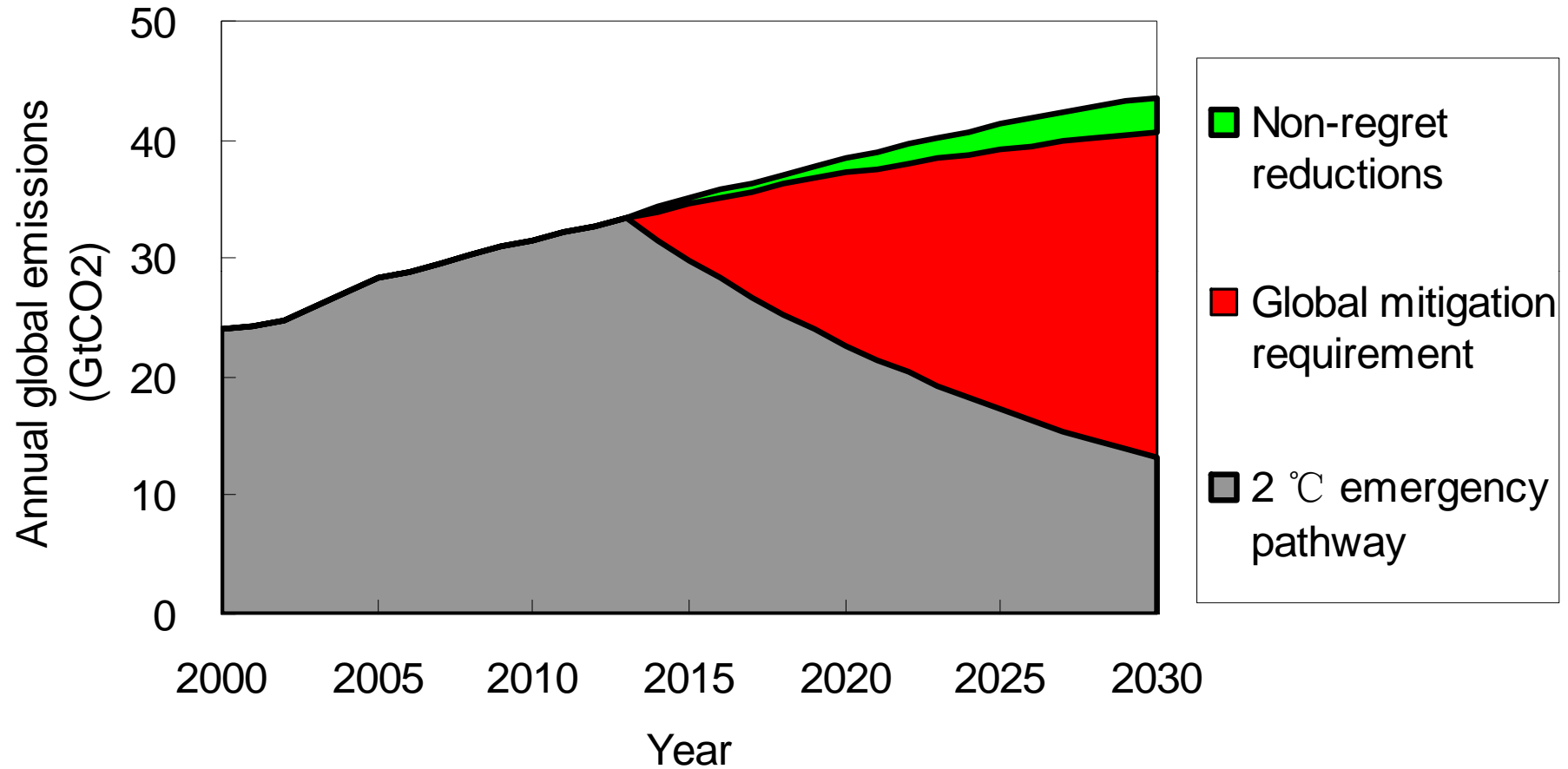
* the numbers in () stand for the ranking of the countries.

III. The common but different responsibilities

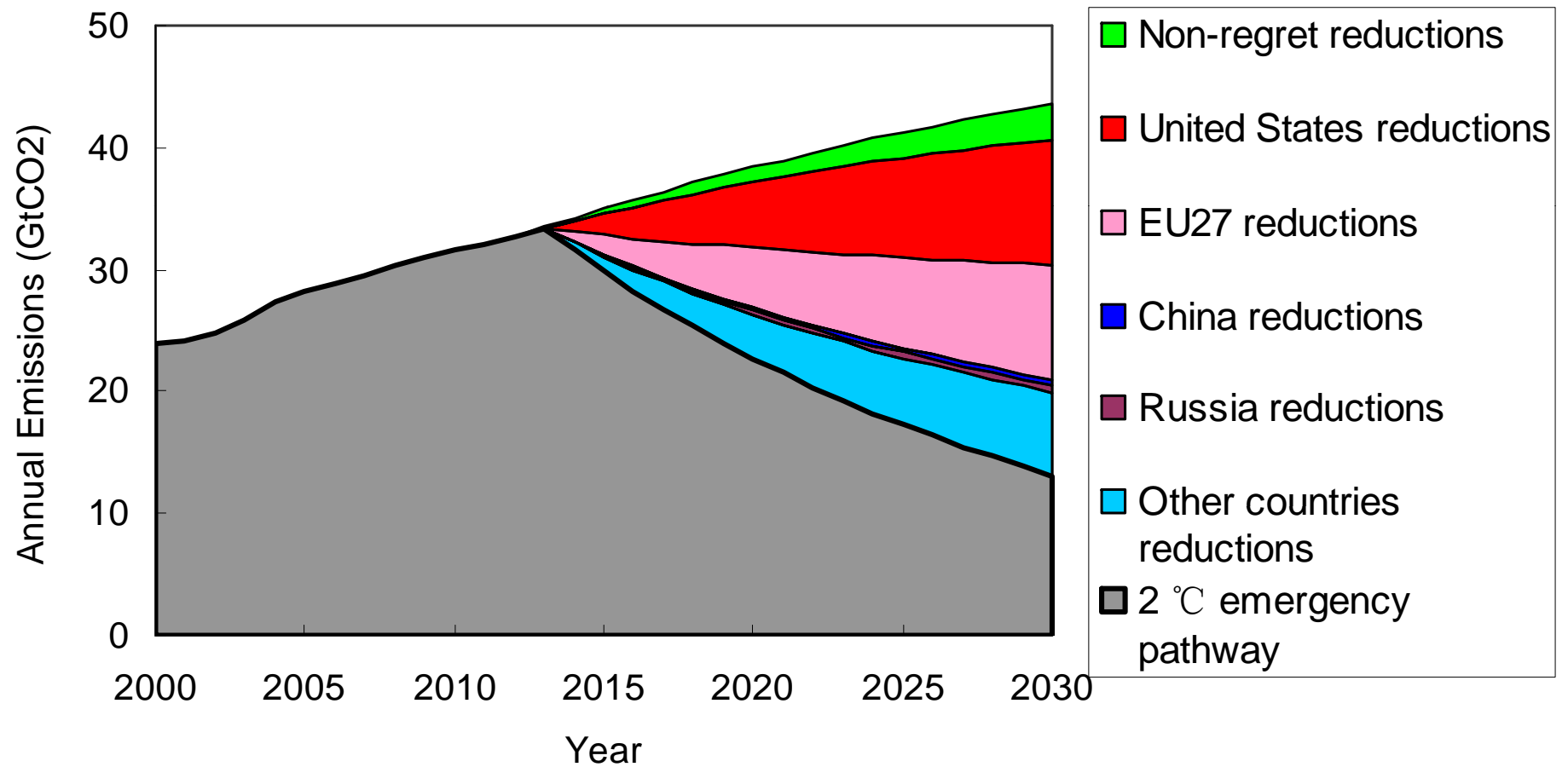
Global 2 °C pathway for three emergency scenarios and their risk



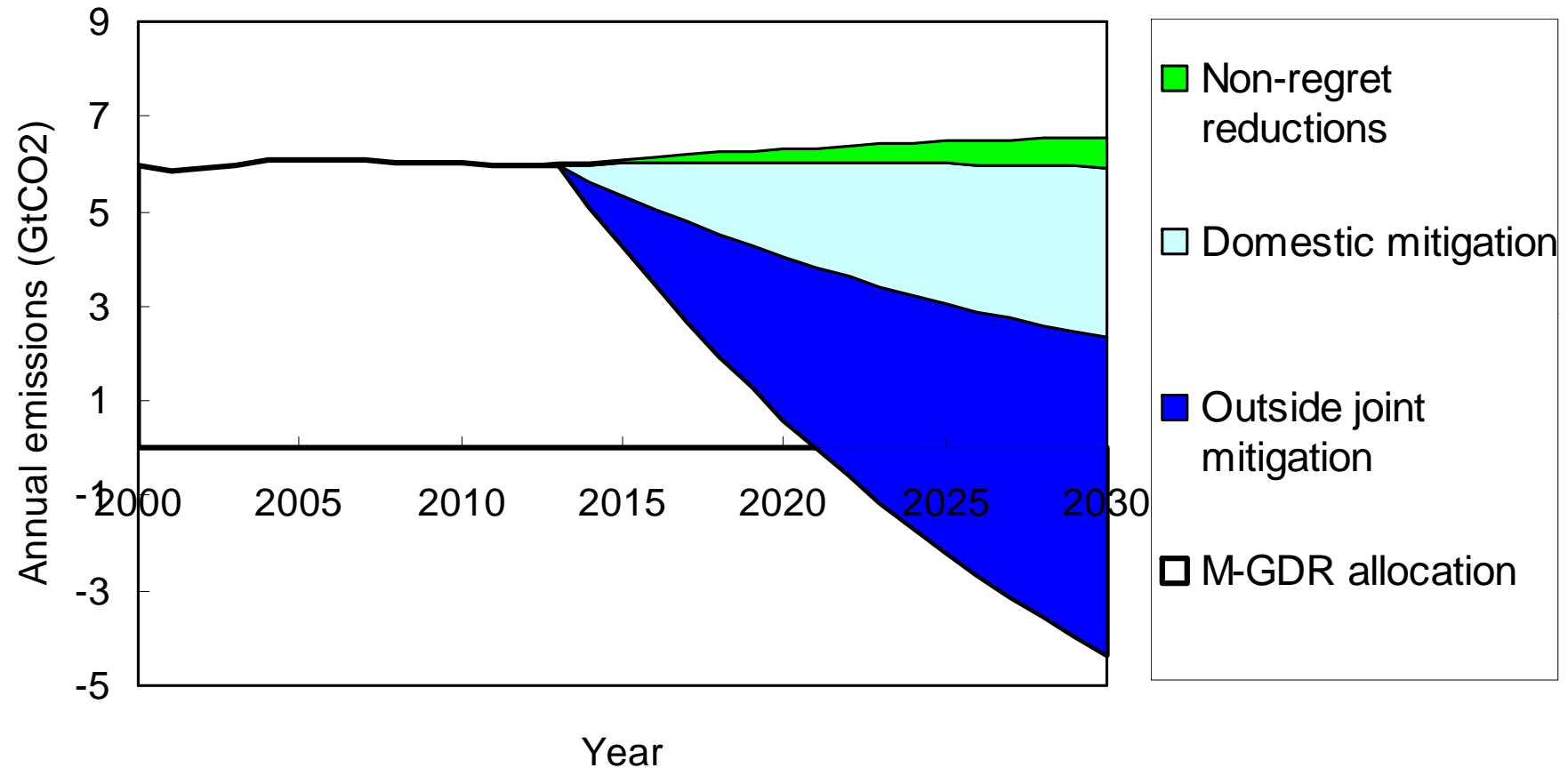
The Global Mitigation Requirement



The burden share among countries based on the RCI of GDR

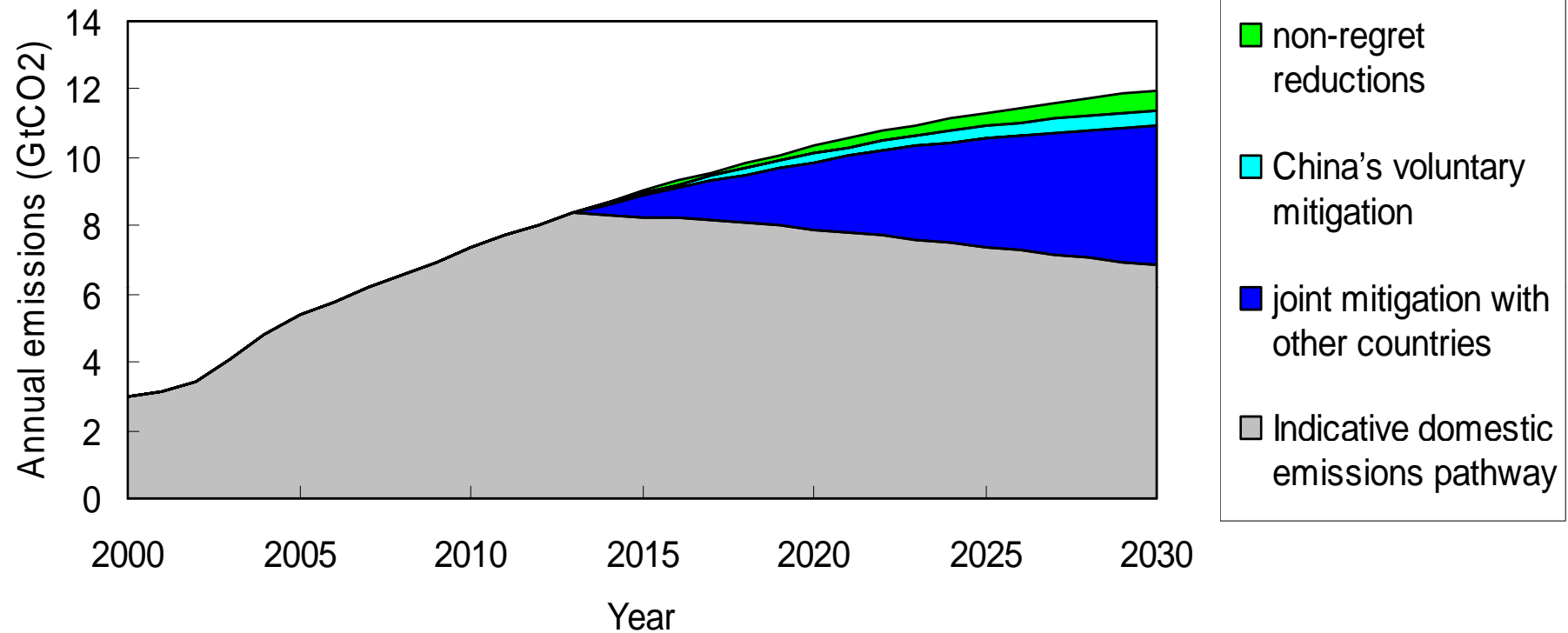


The mitigation pathway of United States



US physical domestic reductions are only part of the total US obligation and the rest would be met internationally.

The mitigation pathway of China



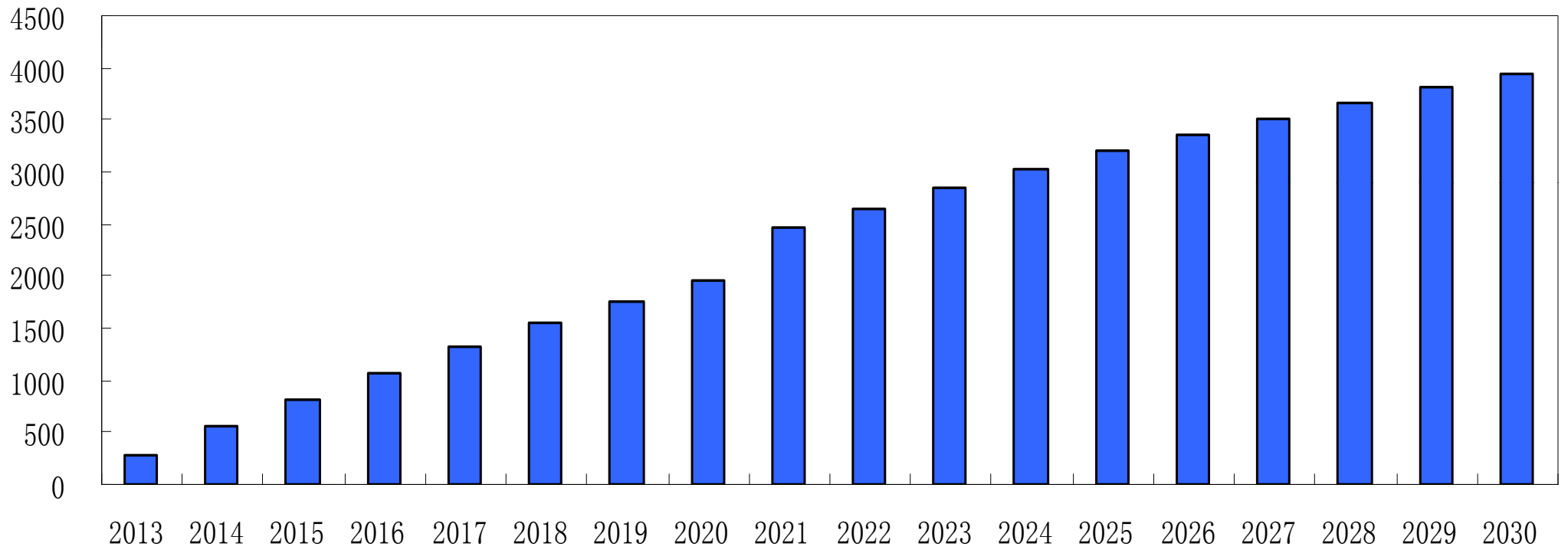
One of the conclusions: A large fraction of the mitigation in the South, including China, should be the “Outside Joint Mitgaition“ of the industrialized countries with financial and technological transfers from the North to the South. And the developing nations should be open and cooperative for international joint mitigation in their countries.

IV. Financial Transfers for OJM

The financial transfers for the outside joint mitigation (OJM) of industrialized countries should reach the estimated amount of

- US\$110 billions annual average for 2013-2020, starting from \$30 bil.
- US\$320 billions annual average for 2020-2030, up to about \$400 bil.

Total financial transfer needed for
outside joint mitigation (US\$ billions)



V. The current problems of global mitigation cooperation mechanism

1. **Too little transfers** . Only US\$0.08 billion annual transfer through CDM, and a multilateral mitigation fund (accumulated) of US\$1 billion currently under the UN framework.

2. Only 2 channels of transfers: CDM and multilateral funds (MF), and lack of international cooperation at country-to-country level.

3. CDM or carbon trade as a market mechanism may mainly generate financial and technical transfers by private sectors. But carbon mitigation is a provision of (global) public goods which requires investment in public infrastructures.

4. While the MF has mainly been financing research and pioneer/experimental projects, the CDM transfers mainly occur “afterwards”. But the mitigation in developing countries requires large investments in infrastructures and technological replacement in advance.
“Afterward transfers” may mean no transfers!

5. Partially due to the lack of international transfers, developing countries are reluctant to participate (what are incentives?) in binding treaties of global mitigation. This in return may result in the lack of transfers from the developed countries.

- The direction of change: how to create a new additional channel for larger transfers in advance at inter-country level?

VI. A Proposal for “Inter-Country joint mitigation Plan” (ICP in short)

Inter-country Joint Mitigation Plan (“Inter-Country Plan” or ICP in short)

- This is a program designed for the international cooperation between developing countries and developed countries, on the base of mutually agreed measurable, verifiable and reportable mitigation projects.
- A developing country which is not part of the binding target program can continuously take part in carbon trade, but may also make a national mitigation program to participate in the Inter-country joint mitigation plan, the ICP, which receives technology transfers and financial transfers from the developed countries
- A developed country which subscribe the ICP of a developing country will be a “mitigation partner country”. Several developed countries may jointly subscribe the ICP of a developing country to form a “partner group” for that particular ICP. The total (or a proportional share of the total) amount of carbon mitigation under this ICP can be counted as part of “outside mitigation” of the developed country (ies) involved .

- The developed countries should commit to 1. technology transfer, and removal of all bans or restrictions on transfers of mitigation technologies. 2. Governmental financial transfers in accordance with country's outside mitigation task. The committed governmental financial transfer can be used in two part. Part I can be put into internationally managed mitigation funds which finances strategic and experimental projects. Part II (which should be the main part) should be used for the ICP.

- If a developing county receive financial transfers sufficiently for the ICP it proposes, should commit itself to a "track To Threshold" (TTT), and if it reaches the Threshold, it should join the binding program too.

The “Threshold” to the Binding Program

- We may take the lowest “country per capita accumulated consumption emission” within the Annex 1. of Kyoto Protocol as the “Threshold” (Romania, 144t, 2005; or in terms of ADE, Portugal, 170t, 2005) of the binding treaty. That means if a country reaches that level of per capita emission, it should join the cap-target mitigation program.
 - A developing country whose emission is lower than the “Threshold” may commit to be on the TTT, pre-conditioned by receiving sufficient financial and technology transfers from industrialized countries.
 - A Industrialized country may proceed with the transfers and ICP to a developing country only when the country concerned is committed to the Threshold mechanism.
- Therefore, this is a reciprocal program.

VII. The 8 main points of

A proposal for

“Global Mitigation Treaty”

1. To identify the mitigation responsibility of a country in accordance to its “accumulated consumption emission (ACE) per capita”;
2. To recognize the capacity of a country for global public goods provision in accordance to its income level.

3. To allocate “Responsibility-capacity mitigation task” of each country based on the “GDR framework” (Baer, Athanasiou & Kartha, 2008) , which can be taken into 2 parts: domestic mitigation and joint mitigation. For a developed country, it may need to take “outside joint mitigation task” meaning it should take this task in other countries; and for the developing country, it should take “inside joint mitigation”.
4. An Industrialized country should take the main responsibility of mitigation and commit to certain domestic mitigation target according to international agreements.

5. A country with outside joint mitigation task should make sufficient financial and technology transfers accordingly, to the countries inside joint mitigation task.

6. A developing country with low ACE may commit to be on the “Track To Threshold”, pre-conditioned to receive transfers for joint mitigation with industrialized countries.

7. Developing countries and industrialized countries may participate in Inter-country joint mitigation Plan (ICP).

8. All countries may participate one way or another in (1) Multilateral Fund (MF), (2) the carbon trade programs (such as CDM), and/or (3) the ICP, in order to fulfill the global mitigation target.

VII. China's Voluntary Mitigation

- As a developing country, China is still in a low emission stage. But it already commits itself to various mitigation actions (20% decrease in energy density in 5 years, etc.)
- And should continuously to make its contribution.

Some major actions:

- Non-regret mitigation associated with improvement of energy efficiency and regulation changes, including enforcement of current environment protection laws;
- Improvement of energy development strategy;
- Institutional and policy incentives (or constraints) for low carbon development;
- Government allocation of funds for clean energy R&D;
- Participation in international cooperation.

Possible Achievement

- By 2020 from now on, China may mitigate its carbon dioxide emission by almost 6 billion tons, the largest mitigation in the world so far, if China continues its high growth and mitigation efforts (such as 20% cut in energy density in every 5 years).

An urgent action: Carbon Tax

- For domestic low-carbon development;
- Against “carbon protectionism” or “carbon discrimination”.

Thanks !