

# The Impacts of Kyoto Protocol Implementation on OPEC Members: Trade, Investment and Technology Transfer

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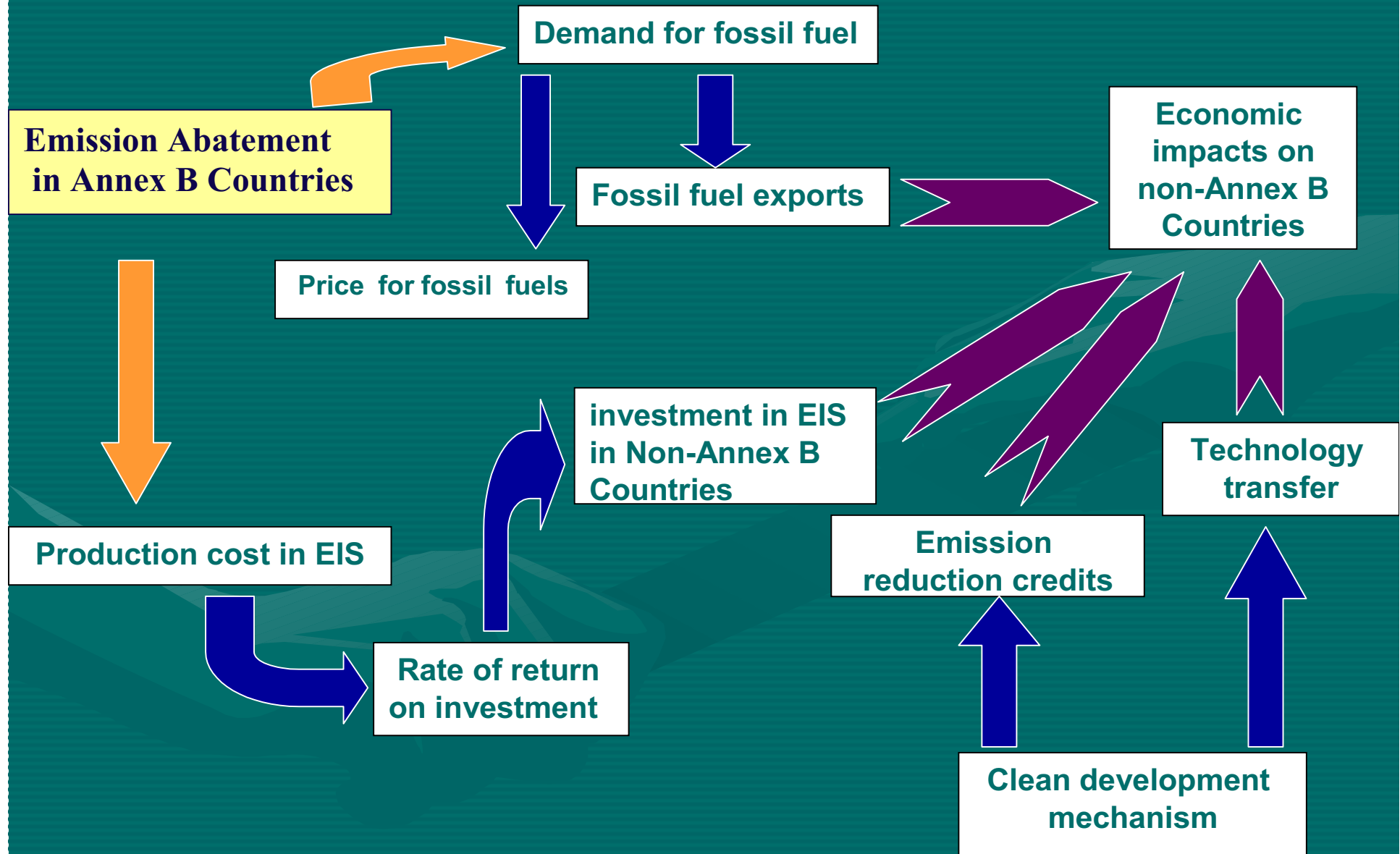
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# Kyoto Protocol Target and Implications

- Main Target: GHGs Emission Abatement in Annex B Countries
  - Effects on Developing Countries:
    - GNP
    - Terms of Trade
    - Investment and Technology Transfer
- 

# Implementation of Kyoto Protocol and Impacts on Developing Countries



- A Review of Some Studies Reveal That in OPEC Members:

- Import Price of Goods Increases

- Export Price of Fossil Fuel Decreases

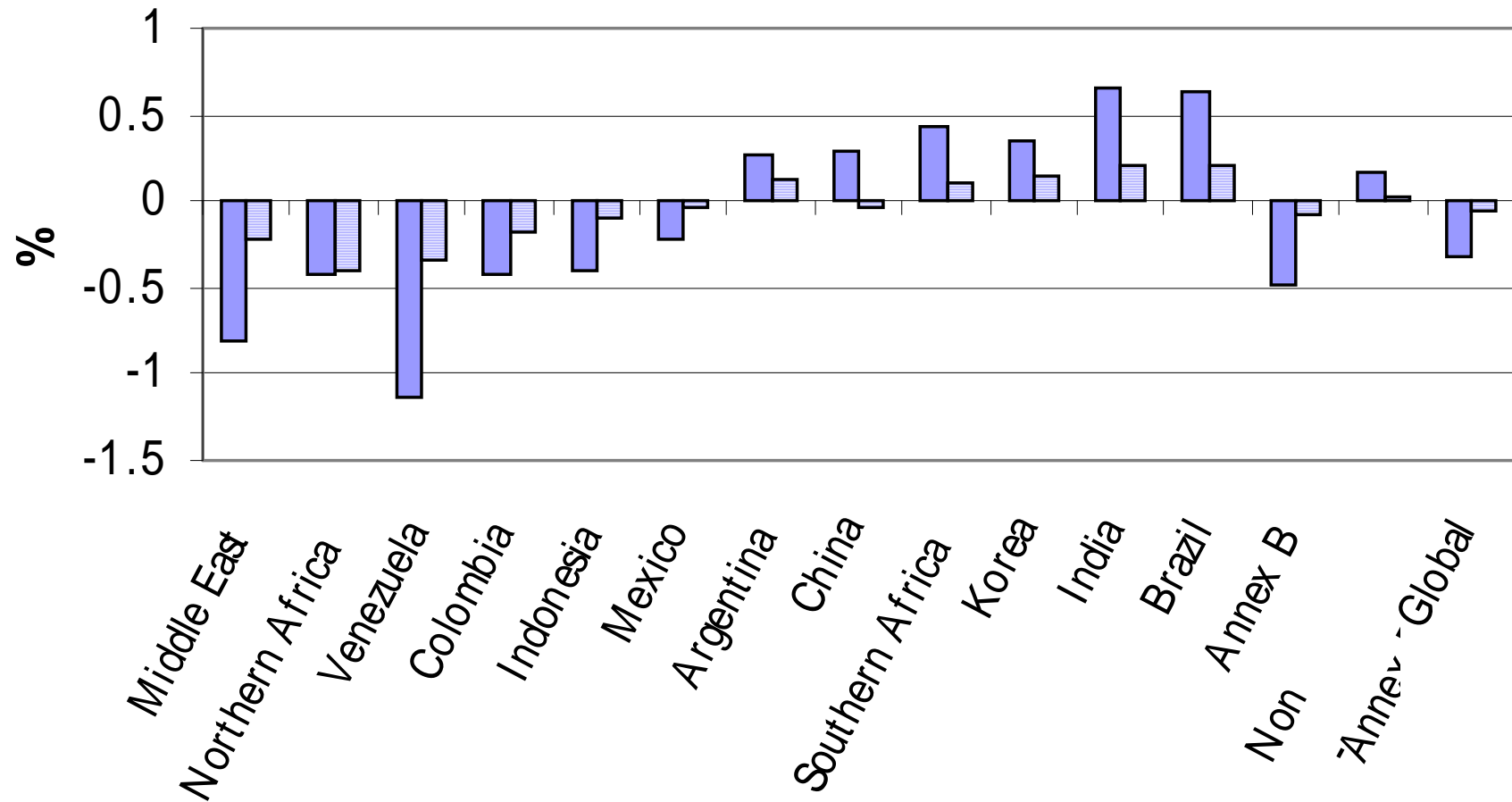
- Investment in Energy Intensive Sector Will Rise

- CDM Projects Will Transfer the Technology and Alleviate The Impacts



Terms  
of Trade

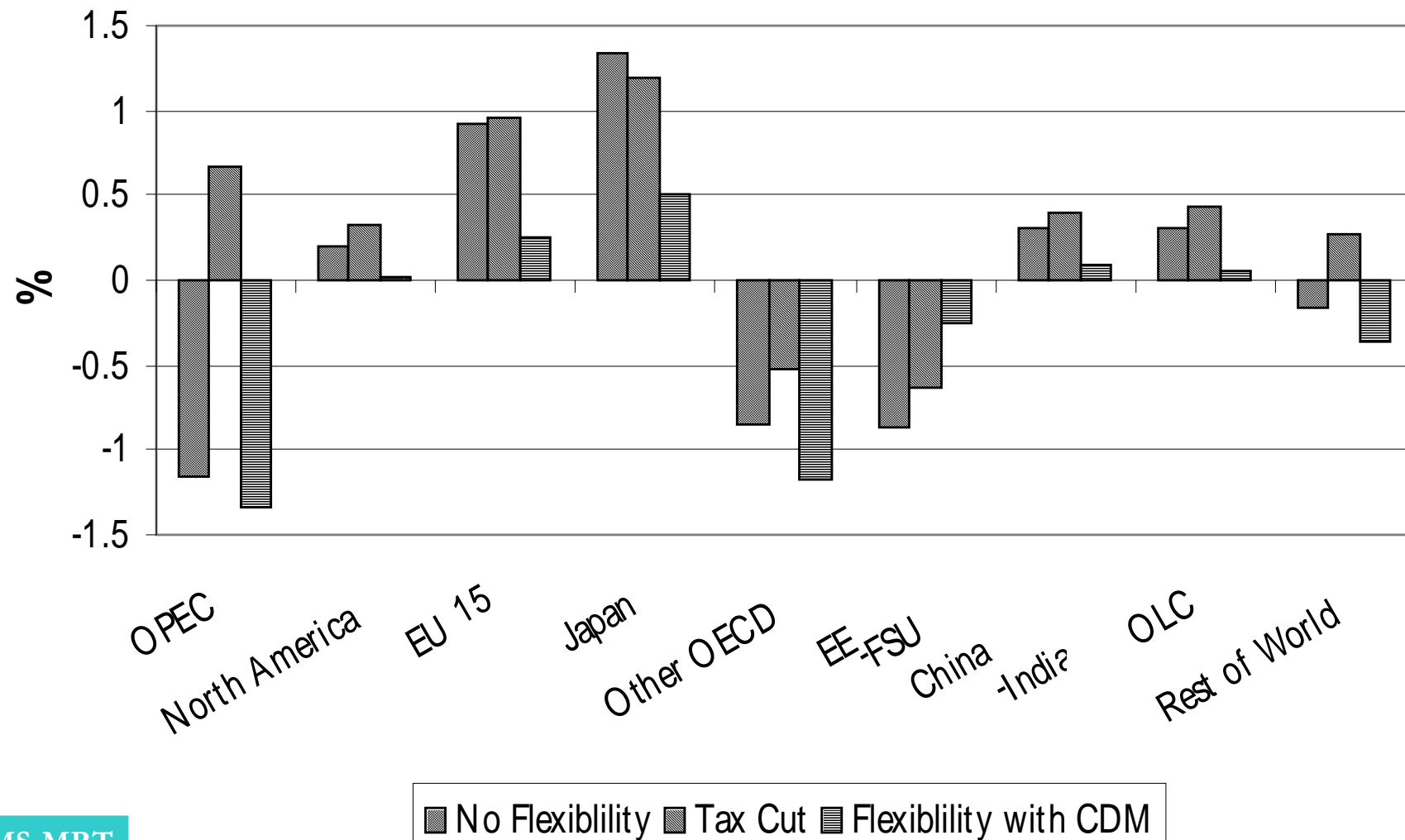
# Impact of KP on GNP by Different Regions in 2010



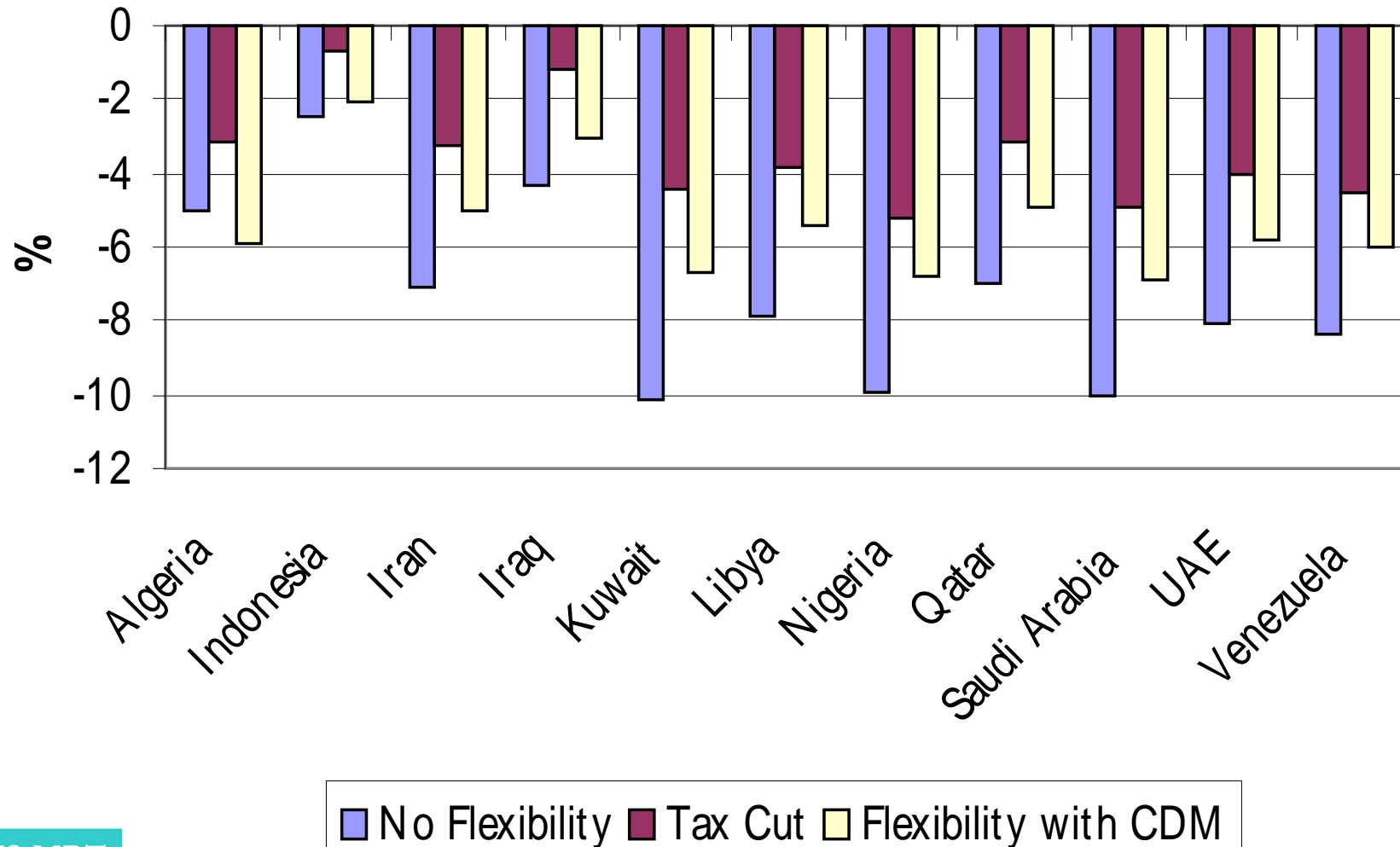
ABARE

■ Independent Abatement ■ Emission Trading

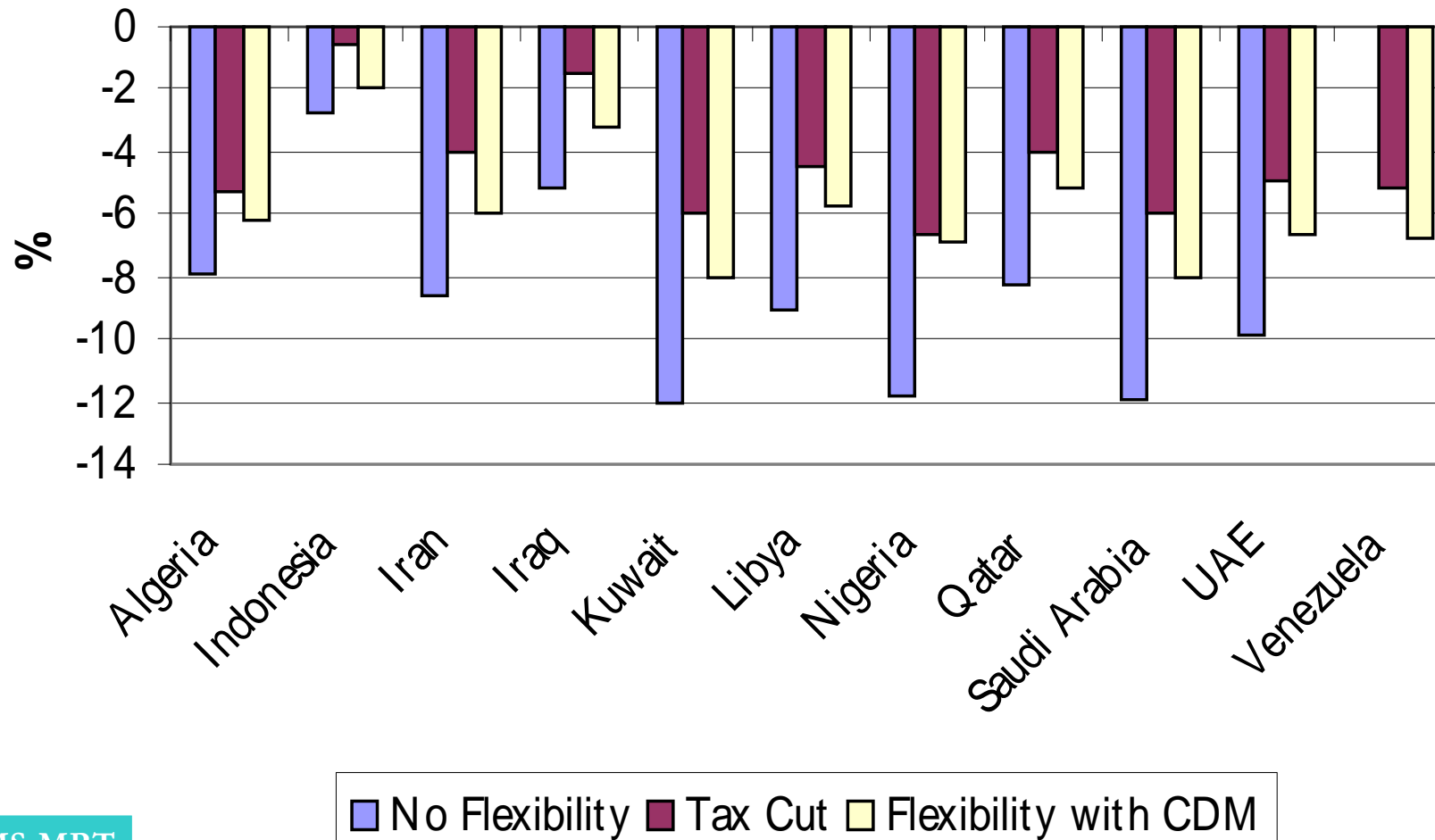
# Impact of KP on Terms of Trade by Different Regions in 2020



# Changes in OPEC Members' Terms of Trade by 2010

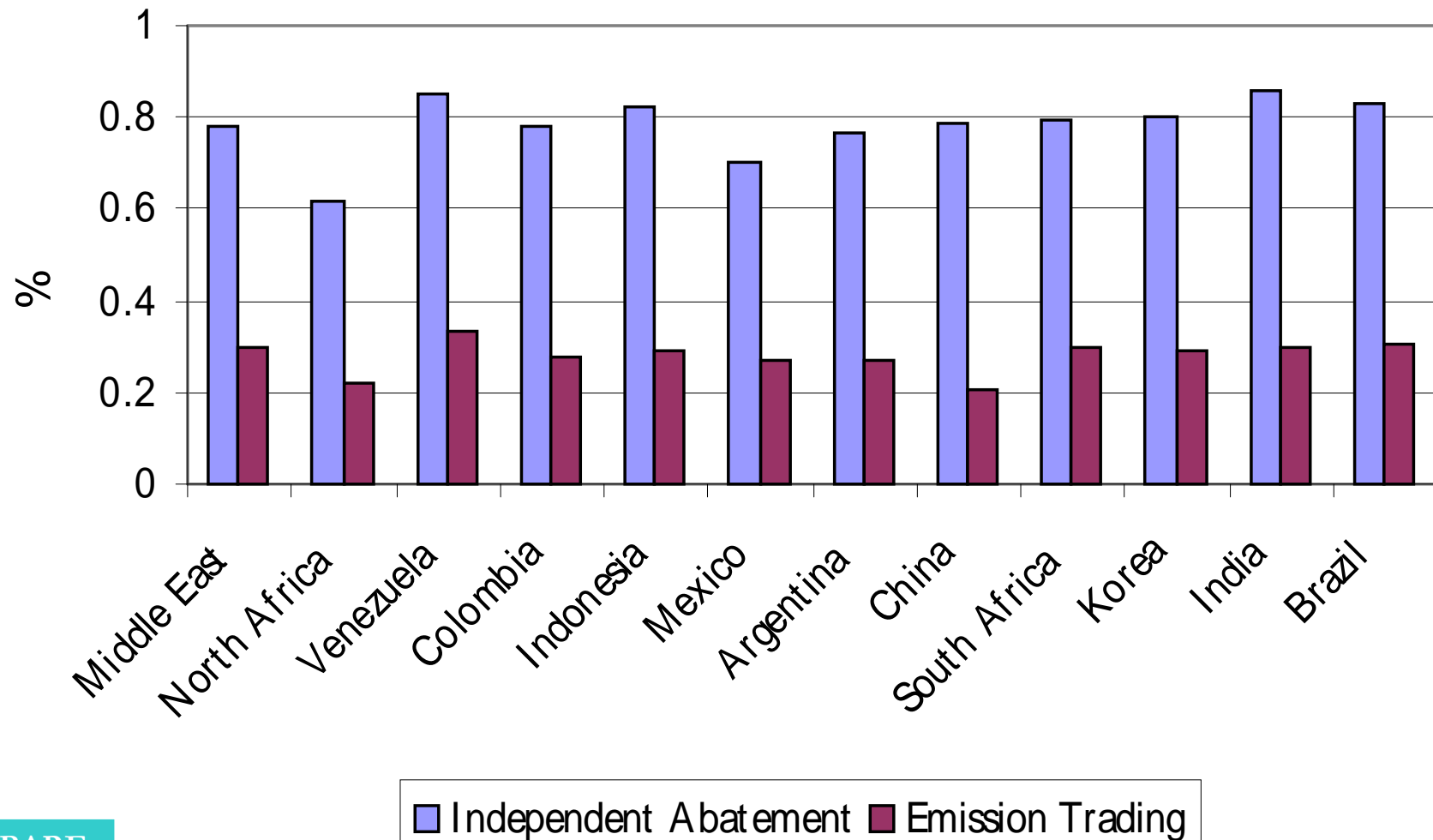


# Changes in OPEC Members' Terms of Trade by 2030



MS-MRT

# Change of Investment in Developing Regions by 2010



# Change in Output of EIS & AOG in 2010 in OPEC Members

AOG			EIS			
Flexibility With CDM	Tax Cut	No Flexibility	Flexibility With CDM	Tax Cut	No Flexibility	
1.5	0.87	1.0	8.8	7.7	6.85	Algeria
0.28	0.09	0.2	6.82	4.93	4.65	Indonesia
0.65	0.5	0.9	6.0	7.7	8.0	Iran
-0.3	-0.65	-0.5	3.4	5.0	4.75	Iraq
1.95	1.78	2.4	8.1	10	11.9	Kuwait
0.08	-0.2	0.15	4.98	5.85	5.9	Libya
0.4	0.17	0.5	3.2	4.47	4.98	Nigeria
0.65	0.4	0.8	3.5	4.95	4.8	Qatar
0.9	0.8	1.0	8.15	9.8	11.4	Saudi Arabia
0.67	0.48	0.88	4.85	6.6	6.7	UAE
-0.45	-0.4	-0.38	2.1	5.65	6.15	Venezuela

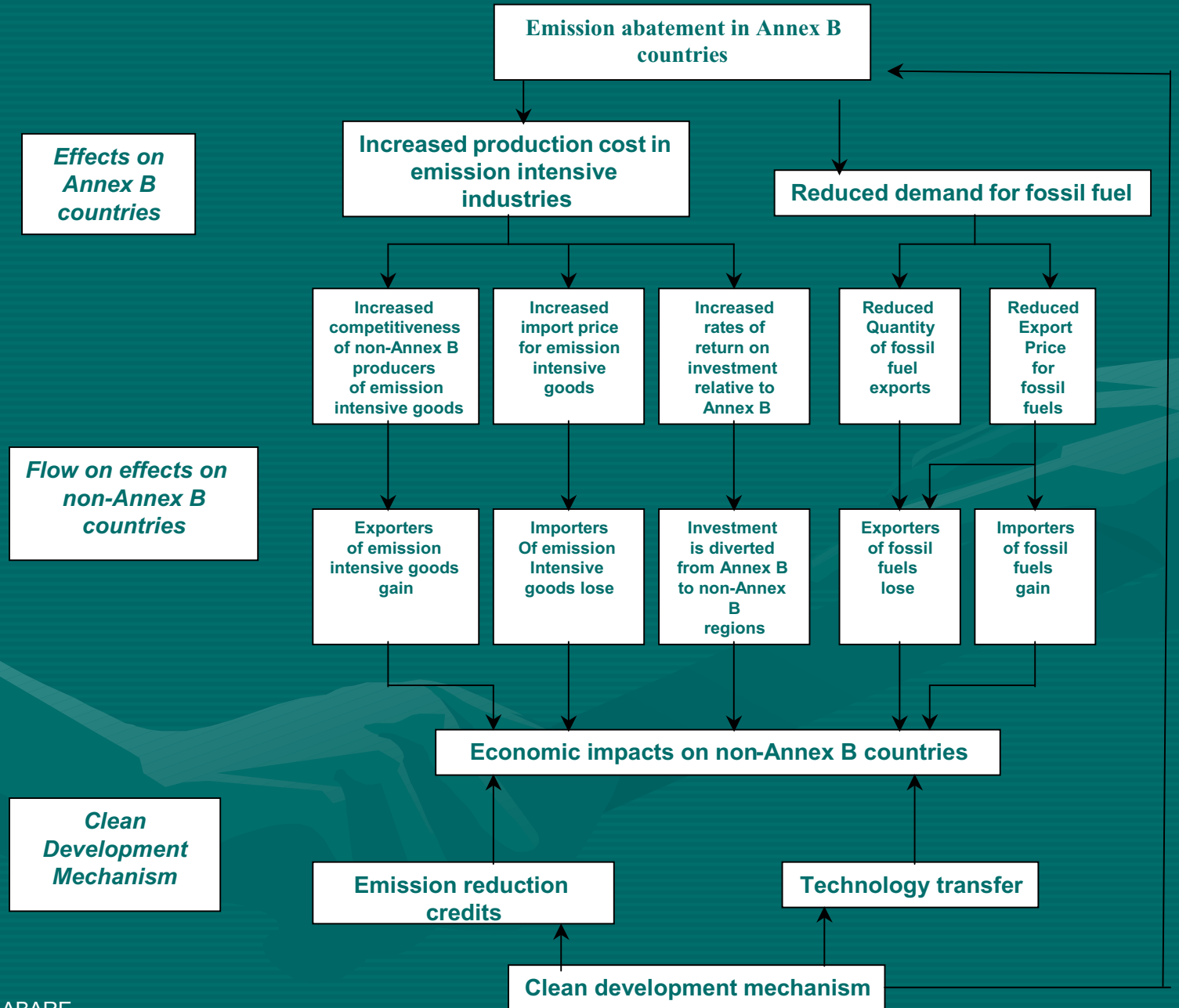
# Considerations

- Validity of Projections Especially IEA and EIA Forecasts
- Oil-Exporting Countries Are Disproportionately Affected
- There Is a Wide Range of Projections Due to Structure of The Model
- CDM projects Have Been Designed More Flexible in Marrakech (COP8)
- CDM Projects Have Side (Indirect) Effects
- There Is a Good Opportunity to Diversify The Economy
- It Creates Opportunity to Cut the Energy Subsidies and Upgrade the Energy Efficiency
- There Is no Need to Build Up Capacity for Oil Production

**Thank You For  
Your Kind Attention**



# Implementation of Kyoto Protocol and Impacts on Developing Countries



*Effects on Annex B countries*

*Flow on effects on non-Annex B countries*

*Clean Development Mechanism*