

Annex V - Economic results

Contents

V.1	Impact on GDP and trade	1
V.1.1	Aviation policies	1
V.1.2	Shipping	4
V.1.3	Aviation and shipping	5
V.2	Other economic impacts	8
V.2.1	Revenue usage	8
V.2.2	CDM credits	11

V.1 Impact on GDP and trade

MBMs for international transport are likely to increase the cost of transport. Therefore these measures are going to impact countries trade and the tourism sector and through these impacts also the Gross Domestic Product of a country. The magnitude of impact is closely related to trade and/or tourism dependency of a country, to the share of imports in domestic consumption and trade balance. For the EU ETS in addition to the above the trade intensity and the flow of tourists between the EU and the country in consideration is an impact factor.

The modelling results in this chapter do not take into account the impacts of tax/allowance auctioning revenue usage nor is the impact of offset costs considered (these effects are presented in a separate chapter V.2). Therefore the results below should be regarded as maximum impacts.

All GDP impacts are given as percentage changes from business as usual (BAU). It should be noted that many of the estimated GDP changes due to the MBMs studies are very small (less than 0.01%).

The largest impacts on GDP are estimated to be in the Cook Islands, Maldives and Samoa for which trade and/or tourism expenditures have a large share in GDP and that, as island states, are dependent on air and sea transport. As expected the Global Emissions Trading Scheme for aviation with high carbon price, 100% auctioning and 100% cost pass through has the highest impact on small CSEs. Option MBM1b does not show any difference from MBM1a because the usage auctioning revenues are not reflected in the results presented in sections V1.1 to V2.3.

The subchapter V.1.1 looks at the aviation policies, V.1.2 deals with shipping and V.1.3 with aviation and shipping together. Where aviation and shipping are dealt with together the in principle similar policies are combined (for example Global Emissions Trading for Aviation and Global Emissions Trading for Shipping).

V.1.1 Aviation policies

Table V.1 Aviation MBM1 (Global Emissions Trading) impacts on GDP in CSE in 2025 as a percentage change from business as usual

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad and Tobago
MBM1a	Specification as in Annex VII	-0.005	-0.001	-0.035	-0.002	-0.504	-0.048	-0.220	-1.080	0.038	-0.083
MBM1b	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely. All other assumptions as in Annex VII for MBM1.	-0.005	-0.001	-0.035	-0.002	-0.504	-0.048	-0.220	-1.080	0.038	-0.083
MBM1c	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely; none of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annex VII for MBM1.	-0.004	-0.000	-0.022	-0.001	-0.335	-0.032	-0.148	-0.725	0.026	-0.055
MBM1d	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VII for MBM1.	-0.002	-0.001	-0.013	-0.001	-0.171	-0.016	-0.076	-0.374	0.013	-0.028
MBM1e	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VII for MBM1.	-0.008	-0.002	-0.053	-0.003	-0.827	-0.079	-0.353	-1.736	0.062	-0.135

Table V.2 Aviation MBM1 (Global Emissions Trading) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM1a	Specification as in Annex VII	-0.007	-0.010	-0.004
MBM1b	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely. All other assumptions as in table 2.1.1 for MBM1.	-0.007	-0.010	-0.004
MBM1c	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely; none of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in table 2.1.1 for MBM1.	-0.003	-0.003	-0.002
MBM1d	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in table 2.1.1 for MBM1.	-0.002	-0.003	-0.001
MBM1e	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in table 2.1.1 for MBM1.	-0.011	-0.015	-0.007

Table V.3 Aviation MBM2 (Global Mandatory Offsetting complemented by a Revenue Generation Mechanism) impacts on GDP in CSE in 2025 as a percentage change from business as usual

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad & Tobago
MBM2a	Specification as in Annex VII	-0.003	-0.000	-0.021	-0.001	-0.335	-0.032	-0.148	-0.725	0.026	-0.055

MBM2b	10 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annex VII for MBM2	-0.001	-0.000	-0.008	0.000	-0.113	-0.011	-0.051	-0.248	0.009	-0.019
MBM2c	50 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annex VII for MBM2	-0.005	-0.000	-0.028	-0.002	-0.553	-0.052	-0.240	-1.180	0.042	-0.091

Table V.4 Aviation MBM2 (Global Mandatory Offsetting complemented by a Revenue Generation Mechanism) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM2a	Specification as in Annex VII	-0.002	-0.002	-0.002
MBM2b	10 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annex VII for MBM2.	-0.001	-0.001	-0.001
MBM2c	50 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annex VII for MBM2.	-0.003	-0.003	-0.003

Table V.5 Aviation MBM3 (European Emissions Trading System) impacts on GDP in CSE in 2025 as a percentage change from business as usual

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad & Tobago
MBM3a	Specification as in Annex VII	-0.000	-0.000	-0.000	-0.003	-0.000	-0.039	-0.189	0.000	0.020	-0.017
MBM3b	None of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annex VII for MBM3.	-0.000	-0.000	-0.000	-0.002	0.000	0.001	-0.131	0.000	0.018	-0.015
MBM3c	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VII for MBM3.	-0.000	-0.000	-0.000	-0.001	0.000	-0.013	-0.066	0.000	0.007	-0.006
MBM3d	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VII for MBM3.	-0.001	-0.00	-0.003	-0.004	0.000	-0.063	-0.301	0.000	0.032	-0.028

Table V.6 Aviation MBM3 (European Emissions Trading System) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM3a	Specification as in Annex VII	-0.003	-0.006	-0.000
MBM3b	None of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annex VII for MBM3.	-0.001	-0.002	-0.000
MBM3c	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VII for MBM3.	-0.001	-0.003	-0.000
MBM3d	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VII for MBM3.	-0.004	-0.009	-0.000

V.1.2 Shipping

Table V.7. Shipping MBM1 (Global Emissions Trading) impacts on GDP in three large case study countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad and Tobago
MBM1a	Specification as in Annex VIII	-0.004	-0.004	-0.008	-0.100	-0.008	0.005	0.038	0.054	0.017	-0.151
MBM1b	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely. All other assumptions as in Annex VIII for MBM1.	-0.004	-0.004	-0.008	-0.100	-0.008	0.005	0.038	0.054	0.017	-0.151
MBM1c	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely; none of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annex VIII for MBM1.	-0.003	-0.004	-0.006	-0.100	-0.008	0.005	0.038	0.054	0.017	-0.151
MBM1d	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VIII for MBM1.	-0.001	-0.001	-0.003	-0.033	-0.003	0.002	0.013	0.018	0.006	-0.050
MBM1e	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VIII for MBM1.	-0.006	-0.006	-0.012	-0.162	-0.013	0.008	0.061	0.087	0.027	-0.245

Table V.8. Shipping MBM1 (Global Emissions Trading) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM1a	Specification as in Annex VIII	-0.004	-0.004	-0.004
MBM1b	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely. All other assumptions as in Annex VIII for MBM1.	-0.004	-0.004	-0.004
MBM1c	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely; none of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annex VIII for MBM1.	-0.003	-0.002	-0.003
MBM1d	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VIII for MBM1.	-0.001	-0.001	-0.001
MBM1e	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VIII for MBM1.	-0.006	-0.006	-0.006

Table V.9. Shipping MBM2 (GHG Fund) impacts on GDP in three large case study countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad and Tobago
MBM2a	Specification as in Annex VIII	-0.003	-0.004	-0.006	-0.052	-0.004	0.003	0.020	0.028	0.009	-0.079
MBM2b	10 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annex VIII for MBM2.	-0.001	-0.001	-0.002	-0.019	-0.002	0.001	0.007	0.010	0.003	-0.029
MBM2c	50 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annex VIII for MBM2.	-0.005	-0.006	-0.01	-0.091	-0.007	0.005	0.034	0.049	0.015	-0.137

Table V.10. Shipping MBM2 (GHG Fund) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM2a	Specification as in Annex VIII	-0.003	-0.002	-0.004
MBM2b	10 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annex VIII for MBM2.	-0.001	-0.001	-0.001
MBM2c	50 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annex VIII for MBM2.	-0.005	-0.003	-0.006

Table V.11. Shipping MBM3 (EU ETS) impacts on GDP in 3 large case study countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad and Tobago
MBM3a	Specification as in Annex VIII	-0.000	-0.000	-0.000	-0.019	-0.078	-0.006	-0.031	0.001	0.033	-0.059
MBM3b	None of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annex VIII for MBM3.	-0.000	-0.000	-0.000	-0.019	-0.078	-0.006	-0.031	0.001	0.033	-0.059
MBM3c	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VIII for MBM3.	-0.000	-0.000	-0.000	-0.006	-0.026	-0.002	-0.010	0.000	0.011	-0.020
MBM3d	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VIII for MBM3.	-0.000	-0.000	-0.001	-0.034	-0.140	-0.010	-0.042	0.001	0.051	-0.084

Table V.12. Shipping MBM3 (EU ETS) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM3a	Specification as in Annex VIII	-0.001	-0.001	-0.001
MBM3b	None of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annex VIII for MBM3.	-0.001	-0.001	-0.001
MBM3c	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VIII for MBM3.	-0.000	-0.000	0.000
MBM3d	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annex VIII for MBM3.	-0.001	-0.001	-0.001

V.1.3 Aviation and shipping

Table V.13. Shipping and aviation MBM1 (Global Emissions Trading Scheme) impacts on GDP in three large case study countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad & Tobago
MBM1a	Specification as in Annexes VII and VIII	-0.009	-0.005	-0.042	-0.102	-0.513	-0.043	-0.182	-1.026	0.055	-0.234

MBM1b	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely. All other assumptions as in Annexes VII and VIII for MBM1.	-0.009	-0.005	-0.042	-0.102	-0.513	-0.043	-0.182	-1.026	0.055	-0.234
MBM1c	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely; none of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annexes VII and VIII for MBM1.	-0.007	-0.004	-0.028	-0.101	-0.344	-0.027	-0.110	-0.672	0.043	-0.207
MBM1d	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM1.	-0.003	-0.002	-0.016	-0.034	-0.174	-0.014	-0.064	-0.356	0.019	-0.079
MBM1e	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM1.	-0.014	-0.007	-0.065	-0.165	-0.840	-0.071	-0.292	-1.650	0.089	-0.380

Table V.14. Shipping and aviation MBM1 (Global Emissions Trading Scheme) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM1a	Specification as in Annex VIII	-0.011	-0.014	-0.008
MBM1b	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely. All other assumptions as in Annexes VII and VIII for MBM1.	-0.011	-0.014	-0.008
MBM1c	15% of allowances under the cap will be auctioned and hence 85% will be allocated freely; none of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annexes VII and VIII for MBM1.	-0.005	-0.005	-0.006
MBM1d	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM1.	-0.004	-0.005	-0.003
MBM1e	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM1.	-0.017	-0.022	-0.013

Table V.15. Shipping and aviation MBM2 (GHG Fund for shipping and Global Offsetting for aviation) impacts on GDP in three large case study countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad & Tobago
MBM2a	Specification as in Annexes VII and VIII	-0.006	-0.004	-0.027	-0.054	-0.340	-0.029	-0.128	-0.697	0.035	-0.135
MBM2b	10 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM2.	-0.002	-0.001	-0.011	-0.019	-0.115	-0.010	-0.044	-0.238	0.012	-0.048
MBM2c	50 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM2.	-0.010	-0.005	-0.038	-0.093	-0.560	-0.048	-0.206	-1.131	0.057	-0.228

Table V.16. Shipping and aviation MBM2 (GHG Fund for shipping and Global Offsetting for aviation) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM2a	Specification as in Annex VIII	-0.005	-0.004	-0.006
MBM2b	10 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM2.	-0.002	-0.001	-0.002
MBM2c	50 US\$ for offsetting a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM2.	-0.008	-0.005	-0.009

Table V.17. Shipping and aviation MBM3 (EU ETS) impacts on GDP in three large case study countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad & Tobago
MBM3a	Specification as in Annexes VII and VIII	-0.001	0.000	0.000	-0.022	-0.078	-0.045	-0.220	0.001	0.053	-0.076
MBM3b	None of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annexes VII and VIII for MBM3.	-0.000	0.000	0.000	-0.021	-0.078	-0.005	-0.162	0.001	0.050	-0.074
MBM3c	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM3.	0.000	0.000	0.000	-0.007	-0.026	-0.015	-0.077	0.000	0.018	-0.026
MBM3d	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM3.	-0.001	0.000	-0.003	-0.038	-0.140	-0.074	-0.343	0.001	0.083	-0.111

Table V.18. Shipping and aviation MBM3 (EU ETS) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM3a	Specification as in Annexes VII and VIII	-0.003	-0.007	0.000
MBM3b	None of the opportunity costs for freely allocated allowances will be passed on (0%). All other assumptions as in Annexes VII and VIII for MBM3.	-0.001	-0.003	0.000
MBM3c	10 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM3.	-0.001	-0.003	-0.000
MBM3d	50 US\$ per allowance for a ton of CO ₂ . All other assumptions as in Annexes VII and VIII for MBM3.	-0.005	-0.010	0.000

V.2 Other economic impacts

V.2.1 Revenue usage

The above GDP impacts do not take into account any impacts from revenue usage and it is assumed that these revenues are simply not used for any purposes. Hence the impacts shown should be regarded as the maximum impacts. One of the options for using the revenues from auctioning carbon allowances or from taxation is to use these to keep the government revenues neutral by reducing, for example, employers' social security contributions by the same amount as it is modelled in this study. Reducing employers' social security contribution will encourage consumption and reduce the negative effects of price increases. However, recycling the EU ETS revenues are not likely to have positive impacts on CSEs economies because these revenues are not returned to CSEs, but stay with the EU Member States that collect the auctioning revenues. Recycling revenues in the EU Member States can compensate for the price increase of imported goods, but this impact is very small and not reflected in the results below (Tables V.25 and V.26). Therefore the CSE results are presented for large CSEs only.

Table V.19. MBM1 (Global Emissions Trading System, 100% auctioning, \$30 per tonne of CO₂) impacts on GDP in CSE in 2025 as a percentage change from business as usual without and with revenue recycling (in brackets)

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad and Tobago
MBM1a	Aviation. Specification as in Annex VII	-0.005 (-0.003)	-0.001 (0.001)	-0.035 (-0.017)	-0.002 (0.005)	-0.504 (-0.445)	-0.048 (0.005)	-0.220 (-0.071)	-1.080 (-0.990)	0.038 (0.075)	-0.083 (-0.065)
MBM1a	Shipping. Specification as in Annex VIII	-0.004 (-0.001)	-0.004 (-0.003)	-0.008 (-0.001)	-0.100 (-0.069)	-0.008 (0.002)	0.005 (0.031)	0.038 (0.060)	0.054 (0.085)	0.017 (0.036)	-0.151 (-0.098)
MBM1a	Aviation and shipping. Specification as in Annexes VII and VIII	-0.009 (-0.004)	-0.005 (-0.002)	-0.042 (-0.018)	-0.102 (-0.064)	-0.513 (-0.442)	-0.043 (0.036)	-0.182 (-0.011)	-1.026 (-0.05)	0.055 (0.111)	-0.234 (-0.163)

Table 20. MBM1 (Global Emissions Trading System, 100% auctioning, \$30 per tonne of CO₂) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual without and with revenue recycling (in brackets)

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM1a	Aviation. Specification as in Annex VII	-0.007 (0.004)	-0.010 (0.010)	-0.004 (0.002)
MBM1a	Shipping. Specification as in Annex VIII	-0.004 (0.001)	-0.004 (0.005)	-0.004 (-0.002)
MBM1a	Aviation and shipping. Specification as in Annexes VII and VIII	-0.011 (0.005)	-0.014 (0.014)	-0.008 (-0.000)

Table V.21. MBM1 (Global Emissions Trading System, 15% auctioning, \$30 per tonne of CO₂) impacts on GDP in CSE in 2025 as a percentage change from business as usual without and with revenue recycling (in brackets)

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad and Tobago
MBM1b	Aviation. Specification as in Annex VII	-0.005 (-0.005)	-0.001 (-0.001)	-0.035 (-0.033)	-0.002 (-0.001)	-0.504 (-0.495)	-0.048 (-0.040)	-0.220 (-0.198)	-1.080 (-1.066)	0.038 (0.044)	-0.081 (-0.080)
MBM1b	Shipping. Specification as in Annex VIII	-0.004 (-0.003)	-0.004 (-0.004)	-0.008 (-0.007)	-0.100 (-0.096)	-0.008 (-0.007)	0.005 (0.009)	0.038 (0.041)	0.054 (0.058)	0.017 (0.020)	-0.151 (-0.143)
MBM1b	Aviation and shipping. Specification as in Annexes VII and VIII	-0.009 (-0.008)	-0.005 (-0.005)	-0.042 (-0.039)	-0.102 (-0.096)	-0.513 (-0.502)	-0.043 (-0.031)	-0.182 (-0.157)	-1.026 (-1.008)	0.055 (0.064)	-0.234 (-0.223)

Table V.22. MBM1 (Global Emissions Trading System, 15% auctioning, \$30 per tonne of CO₂) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual without and with revenue recycling (in brackets)

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM1b	Aviation. Specification as in Annex VII	-0.007 (-0.005)	-0.010 (-0.007)	-0.004 (-0.004)
MBM1b	Shipping. Specification as in Annex VIII	-0.004 (-0.003)	-0.004 (-0.003)	-0.004 (-0.003)
MBM1b	Aviation and shipping. Specification as in Annexes VII and VIII	-0.011 (-0.008)	-0.014 (-0.009)	-0.008 (-0.007)

Table V.23. MBM2 (GHG Fund for shipping and Global Offsetting for aviation) impacts on GDP in CSE in 2025 as a percentage change from business as usual without and with revenue recycling (in brackets)

2025 % Change from BAU		China	India	Mexico	Chile	Cook Islands	Kenya	Maldives	Samoa	Togo	Trinidad and Tobago
MBM2a	Aviation. Specification as in Annex VII	-0.003 (-0.003)	0.000 (0.000)	-0.021 (-0.019)	-0.001 (0.000)	-0.335 (-0.319)	-0.032 (-0.024)	-0.148 (-0.127)	-0.725 (-0.710)	0.026 (0.031)	-0.055 (-0.053)
MBM2a	Shipping. Specification as in Annex VIII	-0.003 (-0.003)	-0.004 (-0.004)	-0.006 (-0.005)	-0.052 (-0.050)	-0.004 (-0.003)	0.003 (0.005)	0.020 (0.022)	0.028 (0.031)	0.009 (0.011)	-0.079 (-0.074)
MBM2a	Aviation and shipping. Specification as in Annexes VII and VIII	-0.006 (-0.006)	-0.004 (-0.003)	-0.027 (-0.024)	-0.054 (-0.049)	-0.340 (-0.323)	-0.029 (-0.019)	-0.128 (-0.105)	-0.697 (-0.679)	0.035 (0.041)	-0.135 (-0.127)

Table V.24. MBM2 (GHG Fund for shipping and Global Offsetting for aviation, \$30 per tonne of CO₂) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual without and with revenue recycling (in brackets)

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM2a	Aviation. Specification as in Annex VII	-0.002 (-0.001)	-0.002 (-0.001)	-0.002 (-0.002)
MBM2a	Shipping. Specification as in Annex VIII	-0.003 (-0.002)	-0.002 (-0.001)	-0.004 (-0.003)
MBM2a	Aviation and shipping. Specification as in Annexes VII and VIII	-0.005 (-0.004)	-0.004 (-0.003)	-0.006 (-0.005)

Table V.25. MBM3 (European Emissions Trading System) impacts on GDP in CSE in 2025 as a percentage change from business as usual without and with revenue recycling (in brackets)

2025 % Change from BAU		China	India	Mexico
MBM3a	Aviation. Specification as in Annex VII	-0.000 (-0.000)	-0.000 (-0.000)	-0.000 (-0.000)
MBM3a	Shipping. Specification as in Annex VIII	-0.000 (-0.000)	-0.000 (-0.000)	-0.000 (-0.000)
MBM3a	Aviation and shipping. Specification as in Annexes VII and VIII	-0.001 (-0.000)	0.000 (-0.000)	0.000 (-0.000)

Table V.26. MBM3 (European Emissions Trading System) impacts on GDP globally and in Annex I and non-Annex I countries in 2025 as a percentage change from business as usual without and with revenue recycling (in brackets)

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM3a	Aviation. Specification as in Annex VII	-0.003 (-0.003)	-0.006 (-0.006)	-0.000 (-0.000)
MBM3a	Shipping. Specification as in Annex VIII	-0.001 (-0.001)	-0.001 (-0.001)	-0.001 (-0.000)
MBM3a	Aviation and shipping. Specification as in Annexes VII and VIII	-0.003 (-0.003)	-0.007 (-0.007)	0.000 (-0.000)

V.2.2 CDM credits

According to the UNEP Risoe Institute (2012¹) the availability of CDM credits is predicted to be 7098 million CER from 2013 to 2020 (this makes 887 million CER per annum). Credits from JI projects in economies in transition (for example Ukraine, Russia) will add additional 40-45 million Joint Implementation credits (ERUs) per annum. The vast majority (very likely more than 50%) of the CDM projects will be carried out in China. India will provide about 30% of CERs followed by Mexico (about 3%) and Brazil (about 2%). Remainder of CDM credits are provided by the rest of the Non-Annex I countries. Vast majority of these projects (about 56%) are carried out in the energy sector. This study assumes that when international shipping and aviation purchase credits for offsetting then the proportions above hold. Since credits from JI projects amount for a small proportion of available credits then it is assumed that these credits are not used.

Table V.27. MBM1 (Global Emissions Trading System, 100% auctioning, \$30 per tonne of CO₂) impacts on GDP in CSEs in 2025 as a percentage change from business as usual without and with revenue recycling and CDM credits(in brackets)

2025 % Change from BAU		China	India	Mexico
MBM1a	Aviation. Specification as in Annex VII	-0.005 (0.023)	-0.001 (0.036)	-0.035 (-0.010)
MBM1a	Shipping. Specification as in Annex VIII	-0.004 (0.016)	-0.004 (0.020)	-0.008 (-0.004)
MBM1a	Aviation and shipping. Specification as in Annexes VII and VIII	-0.009 (0.039)	-0.005 (0.055)	-0.042 (-0.007)

Table V.28. MBM1 (Global Emissions Trading System, 100% auctioning, \$30 per tonne of CO₂) impacts on GDP globally and in Annex I and non-Annex countries in 2025 as a percentage change from business as usual without and with revenue recycling and CDM credits(in brackets)

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM1a	Aviation. Specification as in Annex VII	-0.007 (0.015)	-0.010 (0.012)	-0.004 (0.017)
MBM1a	Shipping. Specification as in Annex VIII	-0.004 (0.008)	-0.004 (0.006)	-0.004 (0.008)
MBM1a	Aviation and shipping. Specification as in Annexes VII and VIII	-0.011 (0.022)	-0.014 (0.018)	-0.008 (0.026)

Table V.28. Shipping and aviation MBM2 (GHG Fund for shipping and Global Offsetting for aviation, \$30 per tonne of CO₂) impacts on GDP in three large case study countries in 2025 as a percentage change from business as usual with the impact of recycling of contribution revenues and usage of CDM credits

2025 % Change from BAU		China	India	Mexico
MBM2a	Aviation. Specification as in Annex VII	-0.003 (0.022)	-0.000 (0.034)	-0.021 (-0.013)
MBM2a	Shipping. Specification as in Annex VIII	-0.003 (0.014)	-0.004 (0.018)	-0.006 (-0.001)
MBM2a	Aviation and shipping. Specification as in Annexes VII and VIII	-0.006 (0.035)	-0.004 (0.051)	-0.027 (-0.013)

Table V.30. Shipping and aviation MBM2 (GHG Fund for shipping and Global Offsetting for aviation) impacts on GDP globally and in Annex I and non-Annex countries in 2025 as a percentage change from business as usual with the impact of recycling of contribution revenues and usage of CDM credits

¹ <http://www.cdmpipeline.org/overview.htm>

2025 % Change from BAU		Global	Annex I	Non-Annex I
MBM2a	Aviation. Specification as in Annex VII	-0.002 (0.009)	-0.002 (0.001)	-0.002 (0.015)
MBM2a	Shipping. Specification as in Annex VIII	-0.003 (0.004)	-0.002 (0.000)	-0.004 (0.008)
MBM2a	Aviation and shipping. Specification as in Annexes VII and VIII	-0.005 (0.012)	-0.004 (0.001)	-0.006 (0.022)