

REBATE AND ATTRIBUTION KEYS<sup>1</sup>

Table 1: Rebate keys for developing countries/regions, 2007 data (author's calculations)

Country/region	Rebate Key %	Country/region	Rebate Key %	Country/region	Rebate Key %
Afghanistan	0.0238	Gambia	0.0030	Nigeria	0.3311
Albania	0.0346	Georgia	0.0360	Niue	0.0001
Algeria	0.2820	Ghana	0.0727	Oman	0.1176
Angola	0.0893	Grenada	0.0038	Pakistan	0.2747
Antigua and Barbuda	0.0075	Guatemala	0.1182	Palau	0.0018
Argentina	0.3586	Guinea	0.0126	Panama	0.0655
Armenia	0.0282	Guinea-Bissau	0.0010	Papua New Guinea	0.0273
Azerbaijan	0.0404	Guyana	0.0101	Paraguay	0.0340
Bahamas	0.0320	Haiti	0.0156	Peru	0.1676
Bahrain	0.1130	Honduras	0.0577	Philippines	0.5980
Bangladesh	0.1565	India	1.9806	Qatar	0.2129
Barbados	0.0134	Indonesia	0.6912	Rwanda	0.0056
Belize	0.0059	Iran (Islamic Rep. of)	0.4176	Saint Kitts and Nevis	0.0028
Benin	0.0103	Iraq	0.1952	Saint Lucia	0.0063
Bhutan	0.0049	Israel	0.5823	Saint Vincent and the Grenadines	0.0034
Bolivia	0.0177	Jamaica	0.0695	Samoa	0.0027
Bosnia and Herzegovina	0.0724	Jordan	0.1048	San Marino	0.0000
Botswana	0.0370	Kazakhstan	0.1729	Sao Tome and Principe	0.0008
Brazil	1.1268	Kenya	0.0907	Saudi Arabia	0.8851
Brunei Darussalam	0.0195	Kiribati	0.0007	Senegal	0.0502
Burkina Faso	0.0158	Korea, Dem. People's Rep. of	0.0153	Serbia	0.1593
Burundi	0.0042	Korea, Rep. of	3.6796	Seychelles	0.0089
Cambodia	0.0492	Kuwait	0.2070	Sierra Leone	0.0041
Cameroon	0.0350	Kyrgyzstan	0.0168	Singapore	2.3585
Cape Verde	0.0076	Lao People's Democratic Republic	0.0099	Solomon Islands	0.0029
Central African Republic	0.0021	Lebanon	0.1197	Somalia	0.0044
Chad	0.0240	Lesotho	0.0179	South Africa	0.8077
Chile	0.3783	Liberia	0.0047	Sri Lanka	0.1174
China	8.3490	Libyan Arab Jamahiriya	0.0627	Sudan	0.0970
China, Hong Kong SAR	2.0579	Macedonia (the former Yugoslav Re	0.0421	Suriname	0.0097
China, Macao SAR	0.0322	Madagascar	0.0252	Swaziland	0.0118
Taiwan Province of China	2.2651	Malawi	0.0113	Syrian Arab Republic	0.1396
Colombia	0.2847	Malaysia	1.1751	Tajikistan	0.0228
Comoros	0.0012	Maldives	0.0113	Tanzania, United Rep. of	0.0595
Congo	0.0277	Mali	0.0147	Thailand	1.3440
Congo (Democratic Rep. of the)	0.0274	Malta	0.0510	Timor-Leste	0.0043
Cook Islands	0.0011	Marshall Islands	0.0007	Togo	0.0077
Costa Rica	0.1283	Mauritania	0.0133	Tonga	0.0015
Côte d'Ivoire	0.0682	Mauritius	0.0402	Trinidad and Tobago	0.0790
Cuba	0.1123	Mexico	1.4594	Tunisia	0.1872
Cyprus	0.0902	Micronesia (Federated States of)	0.0004	Turkmenistan	0.0213
Djibouti	0.0044	Moldova, Rep. of	0.0263	Tuvalu	0.0002
Dominica	0.0020	Mongolia	0.0075	Uganda	0.0308
Dominican Republic	0.1415	Montenegro	0.0298	United Arab Emirates	1.2684
Ecuador	0.1196	Morocco	0.3182	Uruguay	0.0354
Egypt	0.2499	Mozambique	0.0210	Uzbekistan	0.0450
El Salvador	0.0790	Myanmar	0.0304	Vanuatu	0.0021
Equatorial Guinea	0.0288	Namibia	0.0089	Venezuela (Bolivarian Rep. of)	0.3620
Eritrea	0.0066	Nauru	0.0008	Viet Nam	0.5119
Ethiopia	0.0592	Nepal	0.0274	Yemen	0.0827
Fiji	0.0184	Nicaragua	0.0325	Zambia	0.0388
Gabon	0.0204	Niger	0.0090	Zimbabwe	0.0130

SAR = Special Administrative Region

Total Developing Countries: 40.2%

<sup>1</sup> The tables are from the study entitled "Optimal rebate key for an equitable maritime emission reduction scheme" by Dr Andre Stochniol, available at [www.imers.org/docs/optimal\\_rebate\\_key.pdf](http://www.imers.org/docs/optimal_rebate_key.pdf). Contents of the study are the author's sole responsibility; Email: [andre@imers.org](mailto:andre@imers.org)

**Table 2:** Attribution keys for developed countries, 2007 data (author's calculations)<sup>2</sup>

Country	Attribution Key %	Country	Attribution Key %
Australia	1.5983	Latvia	0.0958
Austria	0.4521	Lithuania	0.1143
Belarus	0.0910	Luxembourg	0.0506
Belgium	1.6705	Netherlands	2.3298
Bulgaria	0.2399	New Zealand	0.3177
Canada	1.9773	Norway	0.4904
Croatia	0.2318	Poland	0.7256
Czech Republic	0.4328	Portugal	0.5020
Denmark	0.3991	Romania	0.5534
Estonia	0.1123	Russian Federation	1.3992
Finland	0.6018	Slovakia	0.3236
France	2.6018	Slovenia	0.0961
Germany	4.6015	Spain	3.0122
Greece	0.7362	Sweden	0.9112
Hungary	0.4480	Switzerland	0.5129
Iceland	0.0690	Turkey	1.6386
Ireland	0.5932	Ukraine	0.5624
Italy	2.9651	United Kingdom	3.9644
Japan	6.4161	United States of America	15.9771
Total Developed Countries: 59.8%			

## Conclusion

The “Optimal rebate key” study<sup>3</sup> demonstrates that it is feasible to calculate a suitable proxy for incidence from a global maritime Market-Based Measure (MBM), such as a levy or an emission trading scheme, on different countries. Thus, if so decided, it is feasible to design and implement a global maritime MBM with ‘no net incidence’ on developing countries, by ensuring these countries are compensated for the cost incurred from the global maritime MBM, through a Rebate Mechanism.

<sup>2</sup> Accuracy of attribution keys for individual EU-27 countries is generally lower than for others, and cannot be easily improved at present as data on intra-EU transport modal shares is not available. However, the accuracy of attribution to the EU-27 as a whole is comparable to the other countries, as individual attribution inaccuracies generally balance out in the EU-27 total, calculated as 28.5%. This total attribution key for EU-27 excludes Malta and Cyprus, as these two EU countries were not Annex-I parties in 2007 (their attribution keys are included in Table 1). Since then Malta has become an Annex-I party by decision 3/CP.15 of the UNFCCC.

<sup>3</sup> Available at: [www.imers.org/docs/optimal\\_rebate\\_key.pdf](http://www.imers.org/docs/optimal_rebate_key.pdf).