## Public sector size and country size in theory

To summarize this first argument, non-rival public goods clearly exhibit diseconomies of scale in their production, which obviously leads to disadvantages for smaller countries, caused by higher public expenditure than in larger countries relative to GDP. Nevertheless, the cost disadvantage should decline, when we take into consideration that many public goods can be provided by means of «international outsourcing». Regarding the development of regional and international cooperation and integration within the last decades, a steady decline of the disadvantages of smaller countries due to diseconomies of scale should be observable.

- The above-mentioned possibility of a free ride can easily be underpinned by game theory. The argument may be traced back to Olson (1965) and has already been mentioned in Section 2.2.2.1. The group member with the largest portion of the group gain in a non-unitary group will probably provide the public good (depending of course on benefits and costs for him) and cannot exclude smaller members from its consumption.<sup>37</sup> Thus, in the language of game theory, the strategy-pair defection by small countries and cooperation by larger ones may be a Nash equilibrium.
- Another argument in favor of a greater feasibility of being small is that the evidence simply suggests it. There are currently 193 countries in the world, of which 54 have under two million inhabitants; 34 countries have fewer than 500,000 residents. The dynamics of the process are even more impressive. In 1914 there were only 62 sovereign states on the entire globe; at the end of the second world war the number increased to 74.<sup>38</sup> Thus, within less than a hundred years the number of independent countries more than tripled, a development which has surely not reached its limit yet. There are separation movements almost everywhere in the world. Think of Scotland, the Kosovo, Quebec, Chechnya and East Timor, to name

Think, for instance, of measures against global warming. If the United States had decided to significantly reduce carbon dioxide emissions, all other countries could not have been excluded from the advantages, even if they had not decided to contribute. In a similar vein, the small countries in NATO were able to exploit the U.S.A. by contributing relatively little for their security during the cold war.

<sup>&</sup>lt;sup>38</sup> See *The Economist*, Jan. 3rd, 1998, p. 63f.