OF THE ten richest countries in the world in terms of GDP per head, only two have more than 5m people: the United States, with 260m, and Switzerland, with 7m. A further two have populations over 1m: Norway, with 4m and Singapore, with 3m. The remaining half-dozen have fewer than 1m people. What do such variations imply about the link between population size and prosperity?

People have been debating the optimal size of a nation-state since the days of Aristotle. Understandably, given the diminutive size of Greek city-states, he thought that "experience has shown that it is difficult, if not impossible, for a populous state to be run by good laws." The Founding Fathers of the United States fretted about the excessive size of their new nation; but James Madison argued that large size might be an advantage in a democracy, because it reduced the likelihood that special-interest groups would be able to act in unison to suppress the rights of other citizens.

Now two economists, Alberto Alesina of Harvard and Enrico Spolaore of Brown University, explore the question in a new book* on the subject. Its importance has grown in the past half-century, as old political empires have disintegrated: more than half the world's countries now have fewer people than the state of Massachusetts, which has about 6m.

The book argues that the best size for countries is the result of a trade-off between the benefits of scale and the costs of heterogeneity; and that openness to trade alters this trade-off. The gains from being big are considerable. Large countries can afford proportionately smaller government (although they often don't). Essential running costs can be spread over many taxpayers. Embassies, armies and road networks are all likely to cost less per head in populous countries. Defence in particular is cheaper for giants. "It is only safe to be small in a peaceful world," say the authors (who, unusually for economists, offer two stimulating chapters on conflict, war and the size of nations).

Large countries are able not only to spend more efficiently; they can also raise taxes in more cost-effective ways. Income taxes are more efficient than customs duties, but require a bigger initial bureaucracy. Large countries have bigger internal markets, allowing more specialisation and returns to scale. And they can redistribute resources geographically, providing insurance when one part of the country is hit by disaster or recession and shifting income from rich regions to poor ones.
But size has costs too. Thus large countries are also likely to have a diverse population whose varying preferences and demands a government may find hard to meet: America, Brazil and India are cases in point. A study of local government in the United States suggests that Americans are willing to put up with the higher running costs of small municipalities and school districts in exchange for living in communities with little variation in income, race or ethnicity. This could imply that people also prefer to live in more homogeneous countries. With the main exception of America, successful big countries (such as Japan) have relatively homogeneous populations.

One implication of this analysis is that, where the preferences of a country's people count, their country is likely to be smaller than it would otherwise be. Dictators typically suppress dissent, regional or ethnic. They see the benefits of size (and grab many of them); democracies are more conscious of its costs. So there are few recent examples of mergers between nation-states (North and South Yemen and the two Germanies are rare exceptions) but many of secession. The main reason for the resulting rise in the number of mini-countries is the shift from empire or dictatorship to self-determination, especially in the past quarter-century. "Borders need to satisfy citizens' aspirations," observe the authors.

However, the trade-off between the costs and benefits of size is affected by another factor: trade restrictions. The importance of economic size for prosperity depends crucially upon how open a country's economy is. Small countries that may not be viable in a world of trade restrictions can prosper when trade is liberal and markets are open. "Henceforth," say the authors, "one should expect economic integration and political disintegration to go hand in hand, in a mutually reinforcing process." An instance: the existence of the North American Free Trade Area has arguably reduced the cost of separatism to Quebec.

The American exception

None of this, however, satisfactorily explains the United States. It has a hugely successful economy and one of the world's highest levels of income per head, yet is also one of the most diverse countries on earth. Surely this winning combination of size and heterogeneity disproves the trade-off theory?

The answer, says Mr Alesina, lies partly in history: as in many countries, borders are partly a legacy from the past. In America, the cost of heterogeneity was a protracted and bloody civil war. More important is America's federal structure. If the United States were as centrally ruled as, say, France, the country would break up.

In fact, a world of small economies with open borders will have to replicate America's federal strength. It will need more supra-national organisations, with more power, to preserve markets and co-ordinate policies. The European Union may be a prototype of such bodies, combining large economies of scale with political independence. For the small countries about to join it--Malta, the Baltic states, Slovenia--that is good news. And would-be separatists everywhere need to become free-traders, if they are to aspire to prosperous independence.

* "The Size of Nations", MIT Press