

Economic theories of the break-up and integration of nations

Patrick Bolton^{a,b,d}, Gérard Roland^{b,d,*}, Enrico Spolaore^{b,c,e}

^a *London School of Economics, London, UK*

^b *ECARE, Université Libre de Bruxelles, Brussels, Belgium*

^c *Harvard University, Cambridge MA, USA*

^d *CEPR, London, UK*

^e *Boston College, Boston MA, USA*

Abstract

This paper surveys the recent political economy literature on the size distribution of nations. The main themes of this literature are: (a) the spread of democracy leads to the creation of too many sovereign states; (b) the extent of factor mobility plays a key role in determining the incentives towards separation or integration; (c) economic integration through the development of international trade may require greater political integration to create and effectively maintain a level playing field in international trade; at the same time, economic integration, by reducing the economic costs of separation, increases the incentives towards political separation.

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1. Introduction

The transition to democracy in Central and Eastern Europe has been followed by dramatic border changes. Since 1990, twenty new sovereign states have emerged. While the most spectacular changes have taken place in the former

* Corresponding author. ECARE, 39 Avenue F.D. Roosevelt, 1050 Brussels, Belgium. Tel.: +32 2 650-3845; fax: +32 2 650-4012; e-mail: groland@ulb.ac.be

communist bloc, with the breakup of Yugoslavia, the Soviet Union and Czechoslovakia, secessionist movements have also gained strength in other parts of Europe and the world, as in Italy, Belgium, Spain, the UK, Québec, Punjab, and so on. At the same time, the project of political and monetary integration of the European Union is facing increasing opposition.

Inevitably such important changes attract the attention of academics and other analysts, who want to understand what drives these changes and attempt to predict the future trends they give rise to. The goal of this paper is to survey the recent political economy literature on these issues. This literature is concerned with the general question of the determination of the size distribution of nations. It attempts to isolate the economic and political forces affecting the integration and separation of sovereign states.

As in the theory of the size distribution of firms, the fundamental question this literature must confront is – to paraphrase Ronald Coase – why are there nations? Why is the whole world not integrated in a single nation, which optimally decentralizes decisions to smaller jurisdictions? Indeed, in principle, any decentralization that is achieved with multiple nations could be replicated within a federal state by implementing the desired degree of subsidiarity.

The basic answer to this question is based on the observation that the costs and benefits of political integration are not equally distributed among all members. When two nations integrate in a single political union not all members of both nations benefit from this change; there are winners and losers. Thus, when decisions on sovereignty are taken through majority voting it is possible that a majority against integration emerges even if it is efficient to integrate.

The main issues this literature is concerned with are: (i) how does the democratic process affect a region's incentives to separate? (ii) what are the effects of greater economic integration and greater factor mobility? (iii) to what extent can international trade develop in a world of fragmented nations, in the absence of an effective supranational political institution regulating this trade?

The recent political economy literature on nations is an outgrowth of the local public finance literature¹ and of the literature on fiscal federalism.² It goes one step further than these literatures by endogenizing the size distribution of jurisdictions and by using secession or political integration as instruments affecting the

¹ See the seminal work by Tiebout (1956) and later important developments in Bewley (1981), Stahl and Varaiya (1983), Rubinfeld (1987), Epple et al. (1984). A recent survey of the theory of clubs and local public goods can be found in Scotchmer (1996). Among more recent contributions, see Epple and Romer (1991); Austin (1993); Bénabou (1993, Bénabou (1995), Fernandez and Rogerson (1994), and Jehiel and Scotchmer (1995).

² See Musgrave (1959); Oates (1972); Wildasin (1988); among recent contributions, see Persson and Tabellini (1992, Persson and Tabellini (1993, Persson and Tabellini (1994), Alesina et al. (1995) and Alesina and Perotti (1995).

size of jurisdictions, the scale of public good provision, and the degree of factor mobility and economic integration across borders.³

Section 2 discusses the main economic costs and political benefits of secession emphasized in this recent literature. Section 3 takes a broader perspective and discusses the main themes emerging from this literature. Finally, section 4 offers concluding comments and suggests avenues for future research.

2. The costs and benefits of political integration

The introduction has drawn a useful parallel between the theory of integration of firms and the theory of political and economic integration of nations. There are, however, some fundamental differences between the two problems. A merger is a contract between two sets of owners which is enforced by courts, while a merger of two nations is a treaty which can only be self-enforcing. Another difference concerns the decision making process. A merger goes through when a majority of voting shares in both firms is in favour of the merger proposal.⁴ In practice, this means that a handful concentrated owners carries the proposal. Thus, a merger between two firms can often be described as a negotiated contract between two owners. In contrast, large numbers are involved in deciding unification. If the democratic process is followed, the decision is adopted when a majority of voters is in favour of unification in both nations. In other words, the median voters in each nation determine the outcome.^{5, 6}

³ It is also worth mentioning a long history of ideas in political science bearing on this question. In this literature, the emphasis is on the effectiveness of the democratic institutions themselves. Greek philosophers have argued in favor of the small city-state as the only sovereign institution in which citizens could be directly involved with the decision-making process (Plato, in his *Laws*, calculated the optimal size of such a unit at 5,040 heads of family). With the emergence of the nation-state and the increasing fortune of representative institutions, several arguments were developed in favor of larger political units, as less likely to bring about a 'tyranny of the majority'. For example, in *Federalist 10*, Madison argued that the greater the "variety of parties and interests," the smaller the probability that "a majority of the whole will have a common motive to invade the rights of other citizens; or if such a common motive exists, it will be more difficult for all who feel it to discover their own strength, and to act in unison with each other...". On the debate over size and democracy in the political literature, see Dahl and Tufte (1973).

⁴ In some cases a merger must also be approved by the creditors of the firm if the loan agreement contains covenants restricting shareholders' discretion to dispose of the companies' assets.

⁵ The literature we survey restricts attention to nations with democratic institutions and does not deal with the possibility that jurisdictions may be enlarged or eliminated by military force. Issues of war and military imperialism are clearly relevant and extremely important. However, the analysis of military conflict involves new dimensions which are as yet outside the scope of mainstream economics.

⁶ Note that the process of unification of two democratic nations is not simply the reverse of the process of secession, since secession may in some situations only be feasible if there is a majority in favour in the whole nation, while unification clearly fails if a majority is against in *at least one nation*.

What are the costs and benefits of unification? The general perspective in the literature is that unification provides returns to scale in the provision of public goods, but reduces each member state's ability to determine its most favoured bundle of public goods.⁷ The papers differ in the modeling of public-goods provision, preferences over public and private goods, and in the allocation of public-goods consumption across the population.

A first set of papers, comprised of Casella and Feinstein (1990),⁸ Wei (1991a), Wei (1991b), Alesina and Spolaore (1995a) and Alesina and Spolaore (1995b) uses (implicitly or explicitly) Hotelling's location model to represent the heterogeneity of preferences among voters over the provision of public goods. In Casella and Feinstein (1990), Wei (1991a), and Wei (1991b) the relationship between economic development and political integration is explored. Casella and Feinstein (1990) considers a model where individual traders are located on a line and where the distance between traders affects their gains from trade. In addition, traders are members of nations and of markets. Markets and nations do not overlap perfectly. There is thus room for international trade. Trading within a nation involves lower transactions costs than trading across nations. Within a nation, all traders benefit from the public good of legal enforcement of contracts by national courts. Gains from trade are assumed to increase with economic development and with the level of a public good provision. When two nations unite, average trading costs are reduced since some international transactions now become domestic transactions. Thus, the integration of nations has unambiguous economic benefits. But there are also political costs involved, since the larger the nation, the farther the level of public goods chosen by the median voter will be from local preferences.

In their analysis, economic development, by raising the gains from trade, induces political integration at least initially. The reason is that with higher gains from trade, the marginal benefits from contractual enforcement increase and the advantage of removing the transaction costs from trade across borders outweighs the political cost of unification. At a higher level of development, however, the benefit becomes relatively less important when compared to the political cost, thereby leading to political disintegration. The basic point is that, in their model, economic development and the level of public good provision are assumed to be substitutes, so that the same gains from trade can be obtained at a higher level of development with a lower level of contractual enforcement.

The opposite conclusion is obtained by Wei (1991a) and Wei (1991b) in a slightly modified version of the model of Casella and Feinstein. He shows that political integration goes hand in hand with economic development and integra-

⁷ We define public goods in a broad sense. In particular, we include in this definition publicly-provided private goods.

⁸ See also Casella (1992) and Feinstein (1992).

tion. As in the Casella and Feinstein model, political integration provides economic benefits by facilitating trade. The costs of political integration are in terms of greater inefficiency in government (that is, the larger the nation, the more inefficient the provision of public goods). At higher levels of economic development the economic benefits from facilitating trade are higher and therefore integration may be justified, while at lower levels of development the costs of inefficient government may outweigh the economic benefits of integration. In Wei's model, political integration is necessary to facilitate trade. In Casella and Feinstein, on the other hand, international trade can take place in the absence of political integration. This is the key distinguishing feature between the two models, which explains the different conclusions.

Alesina and Spolaore (1995a) and Alesina and Spolaore (1995b) also consider a location model, but they concern themselves with a different set of issues. They ask how the type of political institution existing in different countries affects the incentives of nations to integrate, and they compare the equilibrium size distribution of nations with the socially-optimal distribution. The basic model they consider has the following features:

A nation is represented by an interval on a line segment, and a public good is chosen in each nation. The capital of each nation is located at the midpoint of the interval, and all public goods are provided in the capital. The further away from the capital individuals are located, the less they like the public good. Political integration provides economic benefits; the size of these benefits is greater the higher the impediments to international trade, or the smaller the degree of economic integration. The cost of political integration is mainly borne by voters at the margins, who are located further away from the public goods.

Alesina and Spolaore show that when public good provision and political integration are determined through majority voting, then, in equilibrium, there tend to be too many small nations. Voters who are located at the borders have an incentive to form separate nations to get public goods closer to their preferences, and the democratic process does not internalize the negative externalities of separation imposed on other voters.

In contrast, when political institutions are not democratic, and when governments are run by self-interested individuals whose objective is to maximize net tax revenues, more political integration takes place. Thus, an important conclusion of their study is that too many nations may emerge as democracy spreads.

How do economic development and integration affect the equilibrium size distribution of nations? An increase in economic integration across countries reduces the need for political integration to achieve a given level of economic development. However, it also exacerbates the problem of political disintegration, so much so that the net effect on welfare of an exogenous increase in economic integration may be negative. Thus, even though the optimal number of nations increases with economic integration, the extent of equilibrium political disintegra-

tion may be so large that it obliterates the economic gains that may be obtained from greater economic integration.⁹

Bolton and Roland (1995) share the perspective that political integration provides economic benefits, but depart from the above set of papers by emphasizing political conflicts originating from differences in income and wealth instead of differences in (geographical) location.

The emphasis is on the role of regional differences in income distribution in shaping regional incentives to secede. To see the main idea, consider a nation with two regions, one (region A) where income is equally distributed and the other (region B) where the income distribution is unequal. Both regions may have a majority in favour of breaking up the nation when the economic cost of separation is not too large. The reason is that under unification the median voter in neither region sees her most preferred redistribution policy implemented, since it is the median voter in the union (who is generally different) who imposes her most preferred policy. Thus, the median voter in region A may prefer lower redistribution and the median voter in region B more redistribution of income than in the union. By splitting up, each median voter can impose a policy that is closer to her most preferred policy. Thus, the benefit of separation – as in the models above – is to produce government policies that are ‘closer to the people’ (that is, closer to the wishes of the median voters in each region). The main difference with the location approach is that differences in median voter preferences are directly tied to an observable economic variable, the regional income distribution.

The main results of the paper are that: (i) Fiscal accommodation in the union reduces the likelihood of secession, but by no means prevents the break-up of a nation under all circumstances. In addition, fiscal accommodation may be in the direction of higher taxes (when the more inegalitarian region is most likely to secede) or lower taxes (when the more egalitarian region is most likely to secede). (ii) A federal constitution is an adequate response to secession threats when fiscal competition between autonomous regions is likely to be small. Full independence may however be preferred to federalism, even if the overall economic efficiency loss is greater, when the constraints imposed on the median voters by fiscal competition under a federal state are large. (iii) Greater labour mobility is a cementing force of the union, while greater capital mobility is not. When all factors are perfectly mobile, separation is self-defeating. (iv) Linguistic imperial-

⁹ Spolaore (1995) and Alesina and Spolaore (1995b) extend the framework of Alesina and Spolaore to allow for international conflict. When nations face the threat of conflict, the possibility of wasteful defense spending must be introduced. It is shown that with a higher likelihood of international confrontation, there is a greater economic and political benefit to political integration. Conversely, when the global threat of conflict is reduced, the number of nations proliferates and the new equilibrium effect of an increase in the number of nations is an increase in localized conflicts. Spolaore (1996) further explores the links between economic and political integration and economic development.

ism by one region (imposing its language on the other region) may actually reduce the likelihood of separation to the extent that it moderates separatist tendencies of that region. Bilingualism may thus increase the likelihood of separation.

3. The main themes

This brief overview of the literature highlights a number of important themes related to the issue of separatism. A first theme is that the spread of democracy gives rise to too many small nations. Inefficient separation may occur because the democratic decision making process cannot perfectly internalize the externalities imposed on minorities. In the Alesina and Spolaore model, citizens at the periphery do not internalize the higher burden of taxation their decision to separate imposes on the citizens at the centre. In the Bolton and Roland model, the majorities in the seceding regions do not internalize the pre- and post-tax income loss they impose on other regions and on the minority in their own region.

A second important theme that emerges is the role of factor mobility. Voting for secession is a substitute for voting with one's feet when voters' mobility is restricted. In the model of Bolton and Roland perfect capital and labor mobility leads to the equalization of fiscal policies across nations and therefore defeats the purpose of seeking independence.

A third important theme is the relation between economic integration (that is the development of free trade and factor mobility) and political integration. Recent history would tend to suggest that economic integration is a process that is largely independent of political integration. If this is indeed the case, then the analysis in the existing models would lead to the prediction that with greater economic integration there will be greater fragmentation of nations, since economic integration increases the incentives for secession.

It is, however, unclear whether some form of political integration is not necessary to sustain economic integration in the long run. Can free trade and factor mobility develop smoothly, independently of any form of political integration? Even though recent history tends to indicate that this is the case, the answer is not at all clear. Supranational organizations such as the World Trade Organization or the European Economic Communities generally lack power to enforce penalties on countries that deviate from international agreements. Smaller nations usually benefit from greater economic integration only when there is at least one super-power able to play the role of international 'policeman' and enforce free trade agreements across countries. Further work is clearly needed to better understand the relationship between economic and political integration. The above observation suggests that a key question is the extent to which arrangements between separate nations can yield protection from conflict in the absence of credible forms of political integration.

Interestingly, there is a connection between the issue of contract enforcement across nations and law enforcement inside nations with weak states and competing mafias. This raises the issue of external conflicts among nations versus internal conflicts within nations. Needless to say, the exploration of these important and difficult issues ought to be the subject of future research.

4. Concluding remarks

The issue of the relationship between economic and political integration is relevant for the current debate on European integration between the federalists, who are in favour of European political integration, and the anti-federalists, who argue that free trade and durable peace inside Europe can be achieved without political integration.

Given the importance of this issue, a final word of caution may be called for. The new literature on nations has only begun analysing how economic variables affect the optimal size of nations. Important dimensions, such as technological progress, the reduction in transport and communication costs, the evolution of the size of firms have not yet been considered. A full understanding of the economic determinants of the optimal size of nations must incorporate these dimensions.

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References

- Alesina, A. and R. Perotti, 1995, Economic and political risk in fiscal unions, NBER Working Paper No. 4992, January.
- Alesina, A. and E. Spolaore, 1995a, On the number and size of nations, NBER Working Paper No. 5050, March.
- Alesina, A. and E. Spolaore, 1995b, International conflict, defense spending, and the size of countries, Mimeo, Harvard University.
- Alesina, A., R. Perotti and E. Spolaore, 1995, Together or separately? Issues on the costs and benefits of political and fiscal unions, *European Economic Review, Papers and Proceedings*, April.
- Austin, D.A., 1993, Coordinated action in local public goods models: The case of secession without exclusion. Mimeo, University of Texas.
- Bénabou, R., 1993, Workings of a city: Location, education and production, *Quarterly Journal of Economics*, 108, 619–652.
- Bénabou, R., 1995, Equity, efficiency, and human capital investment: The local connection, Mimeo, NYU.

- Bewley, T.F., 1981, A critique of Tiebout's theory of local public expenditures, *Econometrica* 49.
- Bolton, P. and G. Roland, 1995, The break up of nations: A political-economy analysis, Mimeo ECARE, April.
- Casella, A., 1992, On markets and clubs: Economic and political integration of regions with unequal productivity, *American Economic Review, Papers and Proceedings*, May.
- Casella, A. and J. Feinstein, 1990, Public goods in trade: On the formation of markets and political jurisdictions, Working Paper in Economics E-92-12, The Hoover Institution, Stanford University, May.
- Dahl, R.A. and E.R. Tufte, 1973, *Size and democracy* (Stanford University Press, Stanford, CA).
- Epple, D. and T. Romer, 1991, Mobility and redistribution, *Journal of Political Economy*, 99(4).
- Epple, D., R. Filimon and T. Romer, 1984, Equilibrium among local jurisdictions: Toward an integrated treatment of voting and residential choice, *Journal of Public Economics* 24.
- Feinstein, J.S., 1992, Public goods provision and political stability in Europe, *American Economic Review, Papers and Proceedings*, May.
- Fernandez, Raquel and R. Rogerson, 1994, Public education and income distribution: A quantitative evaluation of education finance reform, National Bureau of Economic Research Working Paper no. 4883, October.
- Jehiel, P. and S. Scotchmer, 1995, On the right of exclusion in jurisdiction formation, June. CERAS and Berkeley.
- Musgrave, R., 1959, *The theory of public finance* (McGraw-Hill, New York)
- Oates, Wallace E., 1972, *Fiscal federalism* (Harcourt Brace Jovanovich, New York).
- Persson, T. and G. Tabellini, 1992, Federal fiscal constitutions, Part I: Risk sharing and moral hazard, Mimeo, Stockholm University.
- Persson, T. and G. Tabellini, 1993, Federal fiscal constitutions, Part II: Risk sharing and redistribution, Working Paper No. 61, IGER, Milan, March.
- Persson, T. and G. Tabellini, 1994, Does centralization increase the size of government?, *European Economic Review, Papers and Proceedings*, April.
- Rubinfeld, D.L., 1987, The economics of the local public sector, in: A.J. Auerbach and M. Feldstein, eds., *Handbook of public economics*, Vol. 2, ch. 11 (North-Holland, Amsterdam).
- Scotchmer, S., 1996, Public goods and the invisible hand, in: J. Quigley and E. Smolensky, eds., *Modern public finance* (Harvard University Press, Cambridge, MA).
- Spolaore, E., 1995, Enlargement dynamics in political and economic unions, presented at the CEPR/ECARE/Y. Jahnsson Foundation Workshop, The EU Post 1996: Incumbents vs. New Entrants, Brussels, May.
- Spolaore, E., 1996, Economic integration, political borders, and growth, presented at the CEPR/Bank of Israel Conference, Regional Integration and Economic Growth, December.
- Tiebout, C., 1956, A pure theory of local expenditure, *Journal of Political Economy* 64.
- Stahl, K. and P. Varaiya, 1983, Local collective goods: A critical re-examination of the Tiebout model, in: J.F. Thisse and H.G. Zoller, eds., *Local analysis of public facilities* (North-Holland, Amsterdam).
- Wei, Shang-Jin, 1991a, To divide or to unite: A theory of secessions, Mimeo, University of California at Berkeley.
- Wei, Shang-Jin, 1991b, Federation or commonwealth: A viable alternative to secessions?, Mimeo, University of California at Berkeley.
- Wildasin, D., 1988, Nash equilibria in models of fiscal competition, *Journal of Public Economics* 35.