

THE VELOCITY OF INTEGRATION: A COMMENT

1 INTRODUCTION

The purpose of this article is to give some comments on the article by Jan Tinbergen: 'The Velocity of Integration.' My comments consist of the following two points:

1. Starting from Tinbergen's definition: 'Integration is the combination of previously sovereign areas into a larger sovereign area'¹ it has to be mentioned that some transfers of areas into a larger sovereign state, recorded by Tinbergen, do not agree with his definition. This holds in particular for areas which are conquered during a war. I furthermore have excluded the transfer of parts of sovereign areas into other sovereign areas. However, the process by which sovereign areas become one sovereign state voluntarily as a consequence of war or during a war can be regarded as integration. Taking historical developments into account another view of the process of integration is obtained. Another consequence is that some small adjustments are made in Tinbergen's calculations of the velocity of integration.
2. By taking these historical data into account a better insight is obtained into the factors which underlie integration.

2 HISTORICAL PRECISION

In order to reach the two objectives mentioned in the introduction, I have traced the historical conditions of integration in France, Switzerland and the United States of America (USA), the countries Tinbergen discussed in his article. Tinbergen mentions 35 units which were attached to France.² In Table 1 of the Appendix I have given the circumstances under which these units became part of that country. In Table 2 of the Appendix I have compiled the 12 areas of the 35 units, mentioned before, which, in accordance to my interpretation of Tinbergen's definition can be considered to have integrated into France as sovereign countries. On the other hand I could reduce the period of integration with more than one century, as the last sovereign area integrated into France in 1766 and not in 1919. Because of these reductions the growth factor of France, being $\sqrt[48]{12} = 1.0052$, is practically the same as the growth factor of 1.0050 calculated by Tinbergen. The number of sovereign areas integrated into the USA has to be reduced as well. My point is that the states of Ohio, Indiana, Missouri, Alabama, Maine, Michigan and Wisconsin were established on territory which Great Britain had ceded in 1783 when it acknowledged the independence of the USA. Moreover, the states of Louisiana, Missouri, Arkansas, Iowa, Nebraska, North Dakota, South Dakota and Oklahoma were established on land that the USA bought from France in 1803. By this so-called Louisiana purchase the USA obtained so much land that the states of Minnesota, Kansas, Montana and Wyoming obtained the largest part of their territories from land that the USA had acquired by that very purchase. This also holds for the state of Colorado, which obtained the rest of its territory from Mexico after the war of 1846-1848. Moreover, Mexico had to cede so much land after peace had been restored, that

1 Tinbergen, p. 1.

2 Tinbergen, p. 3, Table III.

there was enough for the territories of the states of California, Nevada, Arizona and New Mexico.

On top of that, the USA had bought Florida from Spain in 1819 and Alaska from Russia in 1867. In the meantime the District of Columbia was established on territory that originally belonged to Maryland. Virginia had to give up land for the establishment of the states of Kentucky, Illinois and West-Virginia. Tennessee got its land from North Carolina. So 31 states of the USA have never been sovereign territories. The other 19 states have had sovereign characteristics. That also holds for the thirteen states, originally British colonies, which declared themselves independent and ratified the constitution of 1787 in the period 1787–1791. Texas joined the USA in 1845, after it had freed itself from Mexico in 1835 and had remained an independent republic for ten years. Hawaii was a kingdom in the 19th century. In 1851 King Kamehameha placed his country under USA protection. In 1893 a republic was established. In 1898 the new republic and the USA agreed to annexation. Although Hawaii did not get statehood until 1959, I believe that the right date of integration is 1898. Oregon, Washington, Idaho and Utah got their statehood in the period 1859–1896. Originally, the territory of these states did not belong to the USA. People coming from the USA settled in these regions. They formed more or less independent communities under the protection of the USA and finally applied to the USA for statehood, without considering the original population, the Indians.³ Taking a broad view of Tinbergen's conception of integration these states can be considered to be integrated in the USA in the period 1787–1898. The velocity of integration is $\sqrt[11]{19} = 1.0269$. This lies between the growth factors of integration of the USA calculated by Tinbergen, being 1.0231 for the period 1787–1959 and 1.0316 for the period 1787–1912.⁴

All Swiss units, mentioned by Tinbergen, were more or less sovereign entities when they integrated into the Swiss confederation. He has drawn attention to the fact that Switzerland is one of the countries with different growth factors of integration in different periods, being 1.0002 in the period 1815–1978, 1.0027 in the period 1291–1978 and 1.0035 in the period 1291–1815.⁵

3 THE CAUSES OF THE DIFFERENCES IN THE GROWTH RATES OF INTEGRATION

Tinbergen's conclusions '... that the Swiss and French integration have been slow and ... that the American and the Western European integration show a comparable dynamism, although the forces behind these processes are quite different,'⁶ can be maintained. This appears from the above, although the growth rate of integration of the USA is somewhat altered. He also formulates some hypotheses about the causes of the differences in velocity. He suggests that the difference in language may have an impact on the velocity of integration. In connection with this possibility he mentions that until 1481 only German-speaking cantons joined the Swiss confederation. 'In 1481 the bilingual canton Fribourg/Freiburg joined, but it was not until 1803... after some of the last

3 *Encyclopaedia Britannica*, XXIX, pp. 268–458.

4 Tinbergen, p.5. I assume that in Table VI the period for the USA: 1787–1939 has to be 1787–1959.

5 Tinbergen, p.5.

6 Tinbergen, p.4.

German-speaking cantons, Aargau, Thurgau and St. Gallen had joined that Romanic-speaking cantons became a part of Switzerland, e.g. Gruschins (Graubünden or Grisons) with its two Rhaeto-Romanic dialects, Francophone Vaud and Italian-speaking Ticino (Tessin). In 1815 Francophone Genève (Geneva) and Neuchâtel and bilingual Valais (Wallis) were added.⁷ In my opinion these extensions are consequences of wars, because in January 1798 a French army entered Switzerland and '... the French proclaimed that they had assumed governmental authority over the Helvetic Republic... For all practical purposes, at the end of 1799 Switzerland was a French-occupied country.'⁸ In 1803 Napoleon, First Consul of France but in fact dictator, procured a constitution for Switzerland by which Switzerland was expanded with the already mentioned cantons. This constitution remained in force till December 1813 when Napoleon's power declined. The new frontiers of Switzerland were determined by Napoleon's conquerors in 1815.⁹ And again Switzerland was expanded, as already mentioned. Tinbergen states that 'The main force behind Western European integration may have been fear for the Soviet Union in the pre-Gorbachev era.'¹⁰ He adds: 'Nuclear arms generate major forces which operated for instance, in Western Europe. They may have contributed to the high velocity of integration after 1958.'¹¹ In my opinion war, the fear of war and the outcome of war have not only been a major force behind integration in the era: after the Second World War, but also in earlier periods. The following examples may suffice.

In 1291, Schwyz, Uri and Unterwalden established the Everlasting League, which would later become the Swiss Confederation, because they felt they were being menaced by Rudolf of Habsburg, who felt that he could assert imperial rights in Uri and hereditary rights in Schwyz and Unterwalden. In the period 1351–1352, Zürich, Zug, Glarus, and Bern joined the confederation as a result of the attacks by the Habsburgs on Zürich in 1351 and 1352. Fear of civil war may also favour integration. In 1481 when Fribourg and Solothurn were admitted to the Swiss Confederation, it was stipulated that all the cantons '... would help one another to repress any internal opposition.' The admission in 1501 of Basel and Schaffhausen into the confederation was one of the results of the Swabian war (1499) in which the Swiss defeated the German Emperor Maximilian I of Habsburg who had attempted to force imperial jurisdiction and taxation on them. Appenzell had defended itself against the abbots of Sankt Gallen in the Appenzell War from 1403 till 1410. One of the results was that in 1411 it was placed under the protection of the Swiss confederation of which it became a member in 1513.¹² The extension of that confederation in 1803 and 1815 are also consequences of war, as I have already mentioned.

The establishment of the USA is the result of the War of Independence which the 13 original states waged against Great Britain, and the menace of a war with Mexico contributed to the integration of Texas into that federation.

I also want to point out that war was a major force behind the Italian integration.

7 Tinbergen, p.5.

8 *Encyclopaedia Britannica*, XXVIII, p. 367.

9 *Encyclopaedia Britannica*, XXVIII, pp. 367–368.

10 Tinbergen, p.4.

11 Tinbergen, p.5.

12 *Encyclopaedia Britannica*, I, p. 491; XXVIII, pp. 362–364.

During the first half of the 19th century there was a strong movement for unification. Austria, however, supported the many sovereign princes, but it was defeated in the 1859 war by France and Piedmont. The immediate results were small. Lombardy was ceded to France by Austria. France gave it to Piedmont, which in return ceded Nice and Savoy to France. However, Austria's defeat stimulated movements in favour of unification. So in 1860 the greater part of Italy became united.¹³

In the beginning of the 19th century, Germany consisted of many principalities. In this part of Europe there were many people who wished for a united Germany. It was the Prussian Prime Minister, Otto von Bismarck, who, in 1862, told the Chamber of Deputies: 'The great questions of our day cannot be solved by speeches and majority votes... but by blood and iron.' These words sound cynical, but as far as it concerned the integration of states, history had not put him in the wrong. With regard to Germany it needed the 1866 war between Austria and Prussia and the Franco-German war of 1870/71 to bring about German unification.¹⁴

Tinbergen states that the wish to become a great power, economically speaking, and to become more prosperous is another force at work in the integration of Western Europe.¹⁵ To a certain extent war also plays a role in this force. A large prosperous state is well-suited to wage war in case of need. However, with regard to France and Switzerland I have not seen this force at work. It may have played a role in the integration into the USA of Texas, Oregon, Washington, Idaho, and Utah, but it has not played a role in the German unification. As early as 1834 many German states had concluded a customs union. It was firmly established when in 1871 it became part of the new German empire.

From the German example it appears that it is much easier to organize a customs union than a united European Community. And indeed, in the field of economics, the European Community has made some considerable advances. However, this cannot be said of politics. The clumsy handling of the Gulf conflict (1990/91) and the present divisions (mid September 1991) with regard to the difficulties in Yugoslavia are a case in point.

Up till now (civil) war, the fear of war and the results of war have been a major force behind integration. For the time being this influence has been reduced. This, however, need not be permanent. In the middle of the nineteenth century, after a long period in which Europe had enjoyed peace, war was considered an anachronism; the soldier was considered to be the representative of a dying race.¹⁶ Yet, already at the beginning of the second half of that century wars broke out.

4 WESTERN EUROPEAN INTEGRATION

The tension between the Soviet Union and the USA after World War II, the so-called cold war, ended in 1989.¹⁷ During that period international cooperation certainly increased. But has the EC integrated according to Tinbergen's definition? In order to

13 *Encyclopaedia Britannica*, XXII, pp. 229–230.

14 *Encyclopaedia Britannica*, XV, pp. 122–124.

15 Tinbergen, p.5.

16 Spits, p. 192.

17 *Britannica Yearbook 1990*, p. 271.

answer this question I have to draw the attention to the fact that the USA was a confederation of sovereign states under the Articles of Confederation from 1781. There was a Congress which had power to regulate foreign affairs, war and the postal services, to borrow money and to determine the value of money.¹⁸ Although the powers of Congress had to be increased, which was done by the 1787 constitution, it was the USA which sent ambassadors abroad from 1781 onwards and not the different states. So with regard to foreign countries the sovereign member states acted as one sovereign state. Moreover, the sovereign member states of the USA had adopted one coin. Therefore, the USA is, in my opinion, a sovereign area according to Tinbergen's definition from 1781 onwards.

The sovereign EC member nations, on the contrary, maintain embassies abroad. With regard to a common coin plans are developed but at the moment only a few member nations meet the requirements for a common EC coin with regard to the deficit of the national budget, the rate of interest, economic growth and inflation. Therefore I cannot consider the EC as one sovereign area for which the rate of the velocity of integration may be calculated. This means that the velocity of integration does not vary between 1.0002 and 1.0676 but between 1.0002 and 1.0269. However, I do agree with Tinbergen that supranational authorities are necessary to solve the problems of security, environment, development of poor countries and sustainable development. He also points out that a growth rate of 1.0676 is too low to create these authorities in time. Therefore he concludes that '... it is clear that measures to stimulate integration ought to have very high priority.'¹⁹ I believe that this conclusion is reinforced by the fact that the highest growth rate is only 1.0269 as there is no Western European integration at the moment.

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18 *Encyclopaedia Britannica*, III, p. 526.

19 Tinbergen, pp. 9-11.

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APPENDIX

TABLE 1 – UNITS ATTACHED TO FRANCE

Year	Units attached	Particulars
1205	Touraine	It was ceded by the King of England to the King of France after a war.
1229	Languedoc	It was ceded by the Count of Toulouse to the French King after a war.
1285	Champagne	This happened in 1304 as a result of the marriage of the only daughter of the King of Navarre with the King of France.
1360	Dauphiné	Humbert II, the ruling Prince of Dauphiné sold his territory to the King of France in 1349.
1369	Aunis	See Touraine.
1375	Poitou	See Touraine.
1434	Berry	See Touraine.
1450	Normandie (Normandy)	See Touraine.
1453	Guyenne, Gascogne (Gascony)	See Touraine.
1477	Bourgogne (Burgundy), Picardie (Picardy)	It was ceded by the Duchess of Burgundy to the French King after a war.
1481	Provence, Maine	After the death of the reigning prince the estates accepted the King of France as their king.
1487	Anjou	The French King obtained Anjou as early as 1480 as legal heir.
1527	Bourbonnais, Marche	After the death of the rebellious Constable Charles, it was confiscated by the French King.
1532	Bretagne (Brittany)	The French King obtained Bretagne as legal heir.
1559	Rousillon	This is not entirely correct; Spain ceded this province to the French King in 1659 after a war by means of the Treaty of the Pyrenees, but it was already held by France during 1462–1472 and from 1475–1493 as the result of armed struggles.
1568	Lyonnais	Lyonnais was formed out of other provinces.
1607	Comté de Fois, Limousin	Obtained as a result of family relations.
1620	Béarn (Béarn)	This happened in 1589 when the King of Navarre (Béarn was a viscounty of Navarre) became King of France.
1648	Exilés	Exilés was coded by France to the King of Sardinia in 1713.
1659	Artois	Spain ceded this province to France by means of the Treaty of the Pyrenees in 1659.
1663	Nivernais	This is not entirely correct. It was sold in 1659 to Cardinal Mazarin. His family kept it till the French revolution at the end of the eighteenth century.

TABLE 1 – CONTINUED

Year	Units attached	Particulars
1668	Flandre (Flanders)	Spain ceded this province to France, after a war, by means of the Treaty of Aix-la-Chapelle (Aachen).
1678	Franche-Comté	Spain ceded this province to France, after a war, by means of the Treaty of Nijmegen.
1693	Auvergne	This is not correct. The date of integration is 1615, as a result of family relations.
1768	Corse (Corsica)	It was ceded to France by the Genoese Republic.
1793	Venaissin	(Comtat-Venaissin) It was annexed by France, and belonged till that time to the Papal States.
1860	Savoie (Savoy), Nice	It was ceded to France by Piedmont because of the support France had given in the war of 1859 against Austria.
1919	Alsace, Lorraine	This is not entirely correct. During the Thirty Years War (1618–1648) the Alsatian cities had appealed to the King of France for help as their religious and political freedom was threatened by Austrian Catholicism and Swedish Protestantism. The peace of 1648 made the King of France sovereign of the Alsace. In 1766 the French King became the legal heir of Lorraine.

Source: *Encyclopaedia Britannica*, I, 703; VII, 708, 824; XIX, 479, pp. 524–552.

TABLE 2 – SOVEREIGN UNITS INTEGRATED INTO FRANCE

Year	Unit attached	Cumulated number	Year	Unit attached	Cumulated number
1285	Champagne	1	1607	Comté de Fois,	
1360	Dauphiné	2		Limousin	9
1480	Anjou	3	1615	Auvergne	10
1481	Provence, Maine	5			
1532	Bretagne (Brittany)	6	1648	Alsace	11
1589	Navarre	7	1766	Lorraine	12

These units have been inherited by the French King, except Alsace; see Table 1.

REFERENCES

- Britannica Book of the Year*, Encyclopaedia Britannica, Chicago, 1990.
Encyclopaedia Britannica, Chicago, 1985, 32 volumes.
Spits, F.C., 'Klassedienstplicht in de negentiende eeuw,' in: *Driekwart eeuw historisch leven in Den Haag*, 's-Gravenhage, 1975.
Tinbergen, J., 'The Velocity of Integration,' *De Economist*, 139 (1991), pp. 1-11.

DIFFERENT TYPES OF INTEGRATION, AN ANSWER TO SNAPPER

Snapper's article constitutes a considerable enrichment of the theory of integration. The difference between voluntary co-operation of sovereign entities and unification imposed by war is essential. What we share is the search for the *quantification* of integration, which in most cases makes scientific research more useful. The concept of duration of development (Tinbergen 1992),¹ another example of quantification, illustrates that statement. Snapper's qualification shows the use of this concept. My first attempt at a theory of integration, the impact of language difference, will, I hope, be followed by the introduction of other explanatory factors. Snapper's contribution is such an elaboration. A better theory of integration may help us to find means to accelerate integration, achieve world integration sooner than we are envisaging at present, and thus avoid the possible disasters mankind is now facing: war, pollution, or exhaustion of natural resources.

Jan Tinbergen

1 J. Tinbergen, *Diverging Incomes and the Duration of Development*, 1992, forthcoming.