

Trade, History and Geography. The Geographical Structure of Trade in Germany since the Late XIXth Century¹

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There are very few studies of a country's geographical structure of trade in the long term, and this article aims to show how useful such an approach can be. Our first objective is to give a concise description of the changes in Germany's geographical structure of trade over more than a century by using the trade-intensity indicator, and to evaluate the role of commercial policy in these changes. Research reveals that the most notable concentration of German trade in Europe is to be found in the period since the late 1950s. We had assumed that the process of European economic integration was largely responsible for this. But the long-term perspective and the use of a descriptive method to dissect German trade flows with its European partners points to a more subtle explanation: the European integration process has deeply changed the nature of the relationship between France and Germany and, for the first time since the end of the nineteenth century, has opened the way for intense commercial flows between the two countries.

1. Introduction

An obvious consequence of the current wave of globalisation should be the diversification of the geographical structure of world trade. This follows logically from the very meaning of trade globalisation defined as: "growing economic interdependence of countries worldwide through increasing volume and variety of cross-border transactions in goods and

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² IMF, *World Economic Outlook*, p. 45.

services".² From an historical point of view, it is to be wondered whether the current geographical structure of world trade is more or less similar to the "first" wave of globalisation, which spanned the period from the late nineteenth century to the first world war. In one of his major works, Paul Bairoch³ produced a database on the geographical structure of European foreign trade over the period 1830-1970 which could help answer this question. Using data recorded at ten-yearly intervals, he shows a relative regionalisation of European trade between 1890 and 1970.⁴ This paper aims to discuss the question more in detail by limiting the scope of the study to one country, Germany, for which we have built a database covering all bilateral trade flows over the period 1889-2005.⁵

The study of the German economy over the long term encounters one major hurdle: the successive border changes. In this view, comparing German trade in 1902, 1932, 1962 and 2002 does not make sense. If this line of reasoning is followed, it must be concluded that it is impossible to write "a" German trade history⁶, unless one standardises the German territory over the whole period.⁷ Such an option, however, leads to the analysis of a fictional territorial entity. The alternative consists in studying German trade history notwithstanding territorial boundary changes, which can be "factored in" as an additional explanatory factor. Moreover, an analysis of German trade history may be rich in lessons for the understanding of trade globalisation, as Germany has remained one of the three major world traders since the late nineteenth century.

² Bairoch, "Geographical Structure and Trade Balance of European Foreign Trade".

³ *Ibid.*, pp. 562, 577: the share of Europe in European trade was 67.1 % in 1890 and 72.7 % in 1970.

⁴ The *Statistisches Jahrbuch für das Deutsche Reich*, first published in 1880, gives data on bilateral trade flows of the Zollverein since 1889. Our database covers each year from 1889 to 2005, except the periods of war and hyper-inflation. Over the period 1950-1990 it refers to West Germany.

⁵ It was nevertheless attempted by Wulf, *Der deutsche Aussenhandel seit 1850*. See also Poidevin, *L'Allemagne et le monde au XXe siècle*, which describes separately the different phases of German trade history.

⁶ Maddison, *L'économie mondiale 1820-1992*, pp. 101-102, pp. 110-111: he recomputes the German population since 1820 in the 1989 boundaries. After reunification, a new correction was introduced by Maddison, *L'économie mondiale: une perspective millénaire*, pp. 189-190, p. 195: the 1913 boundaries (without Alsace-Lorraine) are retained over 1820-1913, the 1991 boundaries after 1950.

This article is divided into three main sections. The first two deal with the presentation of German geographical trade patterns over the long term. We begin with the computation of the trade-share indicator and show that the evolution of the geographical structure of trade thus obtained was partly influenced by the changing share of partner countries in world trade. The interference can be cancelled out by the computation of a trade intensity indicator. It will then be apparent that a striking feature of the German trade pattern is a clear-cut strengthening of trade links with Europe since the 1960s. This observation leads us to assess in a final section the validity of the *prima facie* explanation: the concentration of German trade with its European partners is due to the process of European economic integration begun in 1958 with the liberalisation of trade flows between the members of the European Community. Applying a simple descriptive method, we conclude that this political factor is far from offering the sole explanation. The historical perspective points to the fact that the evolution of the European project deeply changed the nature of Franco-German relations, which had major repercussions on the German trade structure.

2. The Standard Measure of the Geographical Trade Pattern: the Trade-Share Indicator, 1889-2005

This section is devoted to the description of the geographical distribution of German trade with the aim of identifying the structural changes in the geographical trade pattern since the late nineteenth century. Achieving such an aim depends fundamentally on the method chosen to grasp historical trends. In the case in question, the standard approach consists in calculating a share indicator. The path followed by the geographical structure of trade that emerged from this indicator will be presented below. In the next section it will be shown that the intensity indicator is another relevant and instructive method of description.

Our first main task has been to summarise the mass of bilateral trade data collected over about a hundred years. Since German trade data were

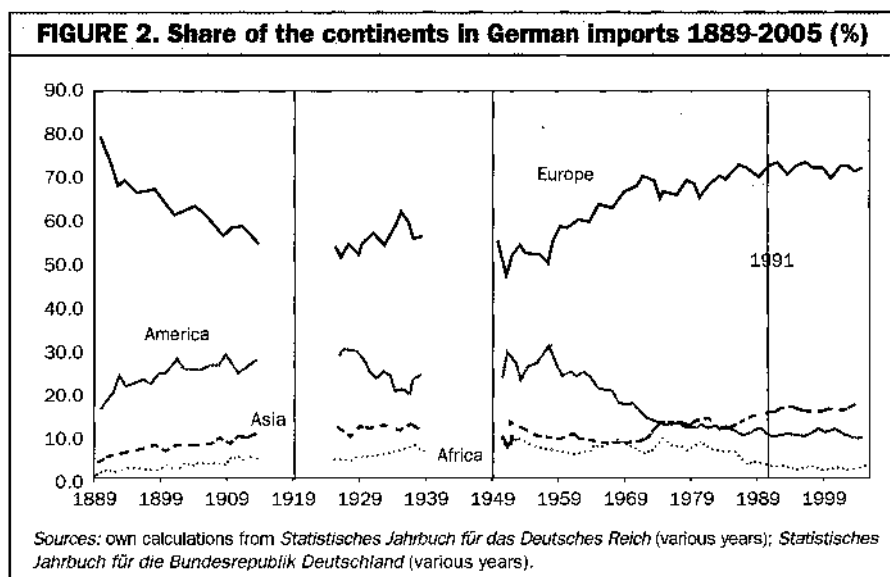
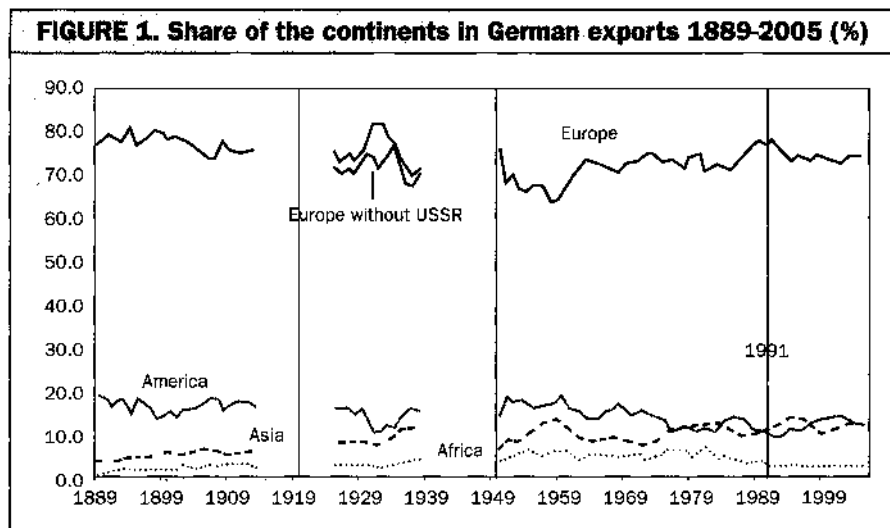
* The definition of the continents has evolved over time. For example, depending on the period, Turkey has been classified either as a European or as an Asian country. We have systematically counted it as a European country.

usually supplied according to country and continent⁸, the continent classification has been retained in the first stage so as to highlight visible trends (see *Figures 1* and *2*). The export and import shares have been calculated separately, because the geographical distributions of German exports and imports fluctuated quite differently. The four sub-periods of German history are then examined in turn.

During the 1889-1913 phase, Europe was the privileged destination of German exports, with an average annual share of 77 %. Its share slightly decreased, while that of Britain, the first partner of the Second Reich, shrank from 20 % of German exports in 1889 to 14 % in 1913. This contraction was counterbalanced by the rising share of a group of European countries, including France, Belgium, Italy, Switzerland and Russia. The other major destination of German exports, the United States (holding third place over 1889-1913), also shows a declining trend from 12 % in 1889 to 7 % in 1913. Latin American countries followed an opposite trend, especially Argentina, Brazil and Chile. The rising shares of Africa and Asia are attenuated in *Figure 1*, because of their relatively weak value. The share of Africa rose almost threefold over this 25-year period (0.7 % to 2.1 %), a rise essentially accounted for by the German colonies (nowadays Tanzania, Namibia, Cameroon and Togo, whose share rose from 0.1 % to 0.5 %), Egypt and South Africa. The same can be said of Asia, as its share of German exports doubled from 2.6% to 5.4%, an increase which is mainly attributable to Japan, India and China. Imports present a different picture: Europe's share gradually sank to the advantage of all the other continents. This was the result of one major factor which is well known: as Germany rapidly became industrialised (and its population grew), its production factors shifted from agriculture to industry, and its demand for agricultural products and raw materials increased continuously; the product structure of its foreign trade, as shown by RCAs (revealed comparative advantages)⁹, began to switch positively for finished products and negatively for agricultural products. These changes boosted the imports of agricultural products and raw material from overseas (American cotton and copper, Argentinian wool

⁹ Dedinger, *Le commerce extérieur de l'Allemagne*, p. 63.

and wheat, Indian cotton and jute, Egyptian cotton, etc.).¹⁰ Another explanation for the relative increase in the share of the extra-European continents in German imports could also be ascribed to the general trend



¹⁰ Germany did not exactly substitute overseas products for European ones for reasons of competitiveness (decline of transport costs). In fact, it continued importing lignite and barley from Austria-Hungary, Russian cereals and Swedish iron ore.

of a growing share of these continents in world exports. We will come back to this point in the following section.

Several economic clauses in the Treaty of Versailles (1919) affected the geographical structure of German trade in that several German provinces were annexed. The loss of coal and iron ore resources greatly disturbed industrial production and therefore affected Germany's foreign trade structure.¹¹ The first trade data published after World War One¹² point to significant changes in the geographical structure of trade as a direct consequence of foreign policy considerations. During the War, German trade was primarily constrained by measures adopted by the Allies. Their nationals were not allowed to trade with the enemy, and a blockade was established to prevent seaborne trade between Germany and its allies. German tradesmen were thus cut off from their traditional customers and suppliers and turned towards the markets of neutral neighbouring countries.¹³ This resulted in a greatly enhanced share of neutral countries in German trade in the immediate post-war period.¹⁴ When normal commercial relations were restored after 1925, the emergence of new partners in Central Europe was the main enduring consequence of the peace treaties, which heralded a greater diversification of German trade in Europe.

As *Figures 1* and *2* show, during the 1925-1938 interlude exports and imports experienced ups and downs. On the export side¹⁵, three phases can be identified: between 1925 and 1929, the various continents' relative shares remained fairly stable compared to those seen under the Second Reich; between 1929 and 1932, the European share rose sharply while the relative shares of the other continents fell symmetrically; between

¹¹ B. Harms (ed.), *Strukturwandlungen der deutschen Volkswirtschaft*, pp. 21-23.

¹² *Statistisches Jahrbuch für das Deutsche Reich*, 1921/22, gives data for 1920 in paper marks.

¹³ Evrard, *Le commerce extérieur de l'Allemagne, 1925-1937*, pp. 45-52; Robinet de Cléry, *La politique douanière de l'Allemagne*, pp. 207-218.

¹⁴ See Candeliez, *Le commerce extérieur allemand*, pp. 31-33. The share of neutral countries in German exports jumped from 21.3 % in 1913 to 50.8 % in 1920.

¹⁵ A curve excluding German exports to USSR has been traced to eliminate the effects of the very erratic evolution of the USSR share to the European share from 1930 onwards. See Bacchler, *L'Aigle et l'Ours*, pp. 291-300, for a detailed description of German-Soviet politico-economic relations over this period.

1932 and 1938, this pattern was completely reversed. On the import side, between 1925 and 1935-36, there was a complete reversal of European and American relative shares compared with pre-1913 trends. This record suggests that the assumption of resilience regarding the regional concentration of trade flows in the interwar period¹⁶ needs to be reconsidered in view of two developments: firstly, the industrialisation of American countries, stimulated by the War in Europe, and the greater economic self-sufficiency of the United States; secondly, the extension of protectionist policies, exchange controls and bilateral agreements in the 1930s, especially after the passing of the Smoot-Hawley tariff of 1930.¹⁷ German annual trade data show, however, that the tendency towards regionalisation stalled in the 1930s, presumably under the influence of political decisions.¹⁸ The Brüning and Nazi governments endorsed commercial policies based on a network of bilateral agreements allowing actual planning of trade flows.¹⁹ The so-called Nazi “economic imperialism” in *Mittleuropa*²⁰ – perceived by Thorbecke²¹ as the main cause of the reorientation of German trade towards Europe – has received much attention. But, in recent economic literature, the effective trade creation and diversion effects of the Reichsmark bloc have been questioned by Eichengreen-Irwin and Ritschl who stress endogeneity

¹⁶ Thorbecke, *The Tendency towards Regionalization*, p. 5: “The most remarkable change in the network of world trade since 1928 appears to be the tendency towards regionalization of trade, or intraregional trade in a broad sense”.

¹⁷ Cf. Foreman-Peck, *A History of the World Economy*, pp. 175-207.

¹⁸ As thinks Thorbecke, *op. cit.*, p. 98: “Germany built in that period a very involved system of quantitative and qualitative trade and payments restrictions, the main purpose of which was political in nature.” But note that our point is different: instead of trying to explain the apparent concentration of German trade with Europe, we are trying to understand the observed diversification of German trade in the 1930s.

¹⁹ See Bonnell, *German Control*; Child, *Theory and Practice of Exchange Control in Germany*; United States Tariff Commission, *Foreign Trade and Exchange Controls in Germany*.

²⁰ The notion of *Mittleuropa* is not linked to any clear geographical definition. According to Droz, *L'Europe Centrale*, p. 20, it is “all the territories of German destiny”. The economic literature generally refers to the *Reichsmark bloc*, i.e. central and southeast European countries linked to Germany by clearing agreements, but there is no single definition. In table 1, we have retained the *Reichsmark bloc* definition found in Milward, “The Reichsmark Bloc”, p. 377.

²¹ It is in fact the thesis of Hirschman, *National Power and the Structure of Foreign Trade*.

(the tendency to trade relatively more with a country group before it is officially formed).²² According to Ritschl, “the eastward move of Germany’s economic interests under the Nazi ‘new order’ is merely a chimera. In spite of all ideological commitment to the contrary, and in spite of the eastbound thrust of the Nazi war effort, the German war economy was in fact westward oriented.”²³ We will try to reconcile these competing views by embracing a wider spatial and temporal perspective.

	Share in German exports (annual average, %)			Share in German imports (annual average, %)		
	1925-31	1932-34	1935-38	1925-31	1932-34	1935-38
	Europe	75.7	79.3	70.9	53.8	56.2
Mitteleuropa (*)	5.1	4.5	10.5	4.5	6.1	12.0
Western Europe (*)	37.6	42.2	30.7	24.2	23.7	18.4
America	14.0	10.7	14.8	27.7	23.2	22.0
United States	6.5	4.6	3.5	14.4	10.8	6.0
South America (*)	4.7	3.5	6.3	7.5	6.0	8.9

(*) Bulgaria, Greece, Hungary, Romania, Turkey and Yugoslavia. See note 20.
 (*) Belgium, France, Netherlands, Switzerland and United Kingdom.
 (*) Brazil, Chile and Argentina.

Sources: see *Figures 1 and 2*.

From the evidence of *Table 1*, two main features stand out: firstly, the fact that Nazi commercial policy – as it began to be implemented in Schacht’s era – had a decisive impact on the structure of foreign trade, seems undeniable. However, since the ultimate objective of this policy was not the conquest of an economic empire in South-East Europe²⁴ but the import of raw materials indispensable for the arms industry, its effects were

²² Eichengreen, Irwin, “Trade Blocs, Currency Blocs”; Ritschl, Wolf, *Endogeneity of Currency Areas and Trade Blocs*. But there is a problem of comparison. For Eichengreen-Irwin, besides Germany, the Reichsmark bloc includes: Austria, Brazil, Bulgaria, Czechoslovakia, Greece, Hungary, Romania; for Ritschl, it comprises: Austria, Bulgaria, Hungary, Yugoslavia, Romania.

²³ Cf. Ritschl, “Nazi Economic Imperialism and the Exploitation of the Small”, p. 340.

²⁴ In *Mein Kampf*, Hitler stresses the need for the conquest of new territories to nurture the German people. The country envisaged was Russia. See Jäckel, *Hitlers Weltanschauung*, chapter II.

a reorientation of trade flows towards countries ready to import German finished products against primary products. As Schacht himself said: "*I buy where the seller buys my wares. I therefore turned to the countries who were ready to supplement their needs by buying German wares, in exchange for which I was prepared to buy from them their wares. This is the, Neue Plan*".²⁵ *Mitteleuropa* countries were as good a candidate as Latin American ones.²⁶ Secondly, the sharp rise in *Mitteleuropa* trade was more than offset, mainly on the export side, by the steep decline of trade with Western Europe, which nevertheless remained proportionately the largest. There was, therefore, a real reorientation of German trade towards South and Eastern Europe, but this was counterbalanced by a reduction in trade flows with Western Europe. The main cause for these changes is very likely to be of a political nature; however, in the longer term, the effects of Nazi commercial policy appear to have been short-lived.

The next phase of German trade history, the longest one in our century-long perspective, can be regarded as the history of a new country. In the immediate post-war period, it looked as if the (West) German economy had come back to *Stunde Null*. *Table 2* summarises the geographical trade composition of Germany in the short and medium term. After 1945, following the partition of Germany and the world into two blocs, the CEEC (Central and East European Countries) and the USSR became minor trade partners of West Germany, and their falling share is less than compensated by the rising share of the rest of Europe. As a matter of fact, a continuing trade diversion effect also affected trade relations with America.²⁷

Over a few years European trade took the lead, especially for purchases, while trade relations with Eastern European countries remained relatively sparse (see *Table 2*). Another notable feature is the sharply declining trend in trade with America. By the mid-1970s, and for the first time since 1889, the American share was overtaken by the Asian one (*Figures 1 and 2*). The likely forces behind these changes were the

²⁵ Quoted in Dengg, *Deutschlands Austritt aus dem Völkerbund*, p. 404.

²⁶ However, Central European countries were privileged, because it was easier to maintain communications with them in case of war. Cf. United States Tariff Commission, *op. cit.*, pp. 173-175.

²⁷ Imports from the US rose concomitantly with the shrinking share of South America.

EEC treaties, the falling purchasing power of Latin American countries, the impressive economic growth of South-East Asia, and the successive oil shocks. Comparing the shares for the Middle-East and South-East Asia (Table 2), the effects of oil shocks do not appear to have been very significant. Japan and the 'four little dragons' were responsible for the rising share of Asia since the 1970s. Meanwhile South America recorded an "historical" decline in German external trade. The decrease in the North America import share is less obvious. The post-1958 evolution of Germany's trade structure can therefore be accounted for by a changing distribution of world wealth. Omitting this factor in the next section will allow us to isolate the impact of other factors such as regional agreements.

Did this tendency continue after the fall of the Berlin Wall in 1989? Table 2 documents how Central and Eastern Europe immediately regained points in trade with the enlarged FRG, but their effects on Europe's global share is less apparent (Figures 1 and 2).

TABLE 2. The Changing Orientation of German Trade after WWII								
	Share in German (*) exports (annual average, %)				Share in German (*) Imports (annual average, %)			
	1925-1938	1950-1957	1958-1990	1991-2005	1925-1938	1950-1957	1958-1990	1991-2005
Europe	75.1	68.2	72.2	74.1	55.6	51.9	66.0	71.7
CEEC (*)	9.1	1.9	2.6	6.4	9.0	1.8	2.4	6.9
USSR-Russia	3.6	0.3	1.7	1.8	3.4	0.5	1.9	2.4
Rest of Europe(†)	61.4	63.9	67.2	64.6	42.0	48.0	61.1	61.2
America	13.5	16.3	12.9	11.7	25.1	27.0	15.9	10.2
United States	5.2	6.3	8.0	8.6	11.2	14.5	9.6	7.4
South America (‡)	6.4	7.4	2.9	1.5	9.3	7.5	3.9	1.6
Asia	7.9	8.6	9.1	11.2	11.2	10.2	10.6	15.4
Middle-East (‡)	0.2	1.5	2.4	1.8	0.1	2.4	2.6	0.8
NIC (‡)	0	0.7	1.1	2.9	0	0.1	1.7	3.4
Japan	1.8	0.7	1.4	2.2	0.4	0.5	2.7	4.8
China	1.7	0.4	0.7	1.7	2.6	0.8	0.5	3.4

(*) Respectively Republic of Weimar/Third Reich; FRG; unified FRG.
 (†) Bulgaria, Czechoslovakia, Czech Republic and Slovak Republic (after 1993), Hungary, Poland and Romania.
 (‡) Europe without CEEC, USSR and Turkey.
 (‡) Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay and Venezuela.
 (‡) Bahrain, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen.
 (‡) Newly Industrializing Countries: Hong Kong, Korea, Singapore and Taiwan.

Sources: Figures 1 and 2.

Was the distribution of German trade dramatically different at the end of the twentieth century from what it was at its beginning? To answer this question, we must examine a counterfactual proposition which leaves aside the two world wars. The territory of the unified post-1990 Federal Republic represents 66 % of the Second Reich area. As the maps in the appendix show, most of the difference is accounted for by provinces lost to Poland. The border changes should then, *ceteris paribus*, have boosted trade between present-day Germany and Eastern Europe, compared with the situation a century ago. The reality is quite different. The share of German trade with Eastern Europe remained remarkably stable throughout, while, in stark contrast, Western Europe took the lion's share among the trade partners of unified Germany (its respective share in German imports rose by 67% compared to 1901-13). The actual distribution of trade (the concentration of German imports into Western Europe²⁸) is therefore exactly the opposite to what border changes should have led us to expect. Does this mean that German trade is more concentrated today than a century ago? The answer is unclear as the movement towards regionalisation essentially affected German imports. On the one hand, Germany seems "as globalised" today as it was a century ago; on the other hand, it appears "less globalised".

A possible explanation for this divergence is that European trade weighs more in world exports than in world imports, so that the European

	Share in German exports (annual average, %)		Share in German imports (annual average, %)	
	2nd Reich 1901-1913	Unified FRG 1991-2005	2nd Reich 1901-1913	Unified FRG 1991-2005
	Europe	75.9	74.1	59.4
Eastern Europe (*)	12.1	12.6	11.1	11.7
Russia, ex-USSR	7.1	1.8	13.8	2.4
Rest of Europe (°)	55.6	58.4	33.8	56.4

(*) During 1901-1913: Austria-Hungary, Romania, Serbia; during 1991-2005: Austria, Bosnia-Herzegovina, Croatia, Czech Republic, Hungary, Macedonia, Poland, Romania, Slovak Republic, Slovenia and Yugoslavia.
 (°) Europe without Eastern Europe, Russia (ex-USSR) and Turkey.

Sources: see Figures 1 and 2.

share has grown more in German imports than in German exports. This brings out the need for another instrument, the trade-intensity indicator.

3. Neutralising the “Size” Effect on the Geographical Trade Pattern: the Trade-Intensity Indicator, 1889-2005

While the trade-share indicator is of obvious interest, it biases the comparison between different partners, so far as a “big” country in world trade tends to have a bigger share in the trade of any country than a “small” one. By neutralising this “size” effect, the trade-intensity indicator²⁹ enables us to compare the other determinants of trade links, such as trade costs³⁰ or factors less frequently examined such as foreign policy and migration.

The intensity of Germany’s exports to country *i* is calculated as follows:

$$I_{Germi}^x = \frac{X_{Germi} \div X_{Germ}}{M_i \div (M_{World} - M_{Germ})} \quad 31$$

where: X_{Germi} = German exports to country-region *i*

X_{Germ} = total German exports

M_i = total imports of country-region *i*

M_{World} = world imports

M_{Germ} = total German imports

²⁹ Remember (*Figure 2*) that the European share in German imports declined from 1889 to 1913. It looks as if the German import structure in the 1990s returned to the situation of the 1880s.

²⁹ We have used the trade-intensity indicator proposed by Kojima, “The Pattern of International Trade among Advanced Countries”, p. 19.

³⁰ As broadly defined by Anderson, Wincoop, *Trade Costs*, p. 2, they include factors of an economic, political and technical-geographical nature: “*transportation costs, policy barriers, information costs, contract enforcement costs, costs associated with the use of different currencies, legal and regulatory costs, and local distribution costs.*”

³¹ At the denominator, German imports are subtracted from world imports, because the calculation of Germany’s export intensity with partner *i* cannot include the imports of the referent country. In the same way, if *i* is a country group that includes Germany (say Europe), German imports must be subtracted from world imports and from European imports at the denominator. See Kojima, *op. cit.*, p. 19; Drysdale, Garnaut, “Trade Intensities and the Analysis of Bilateral Trade Flows”, p. 68.

The export-intensity indicator divides the share of country or region *i* in total German exports (indicator of share of exports) by the share of country-region *i* in world imports. If the size of country-region *i* in German exports equals its size in world imports, the index intensity of exports will therefore be 1. For instance, in 1913 the United Kingdom was the Second Reich's major partner and accounted for 14 % of its exports, while only 1 % of German exports went to Chile. The export intensity of Germany is 0.8 with the United Kingdom, 1.4 with Chile. This means that the share of Britain in German exports was determined primarily by Britain's position in world imports (16 % of world imports in 1913). If Britain's share of German exports is below the 16 % mark – a "normal" share – one assumes that "high resistances" to bilateral trade³² were put in the way. Conversely, Chile held a much larger share of German exports than of world imports (0.6 % in 1913), a fact which must be explained by relatively "low resistances". We then reconsider the regional distribution of German trade, using the intensity indicator for exports and imports. On cursory inspection, the operation produces quite a different picture (*Figures 3 and 4*) than the one which emerged previously (*Figures 1 and 2*).

Over the 1889-1913 period, the dominance of Europe in German export trade is smoothed out as the average export intensity fluctuated year by year around 1.3. This translates into the European share in German exports being on average 30 % larger than the European share in world imports (excluding German imports). In other words, Europe's share in German exports was due partly to its share in world imports and partly to relatively low resistances. The average export intensity with America was close to 1.0 (0.9) but it fell slightly before World War I. Germany's trade with Africa strengthened throughout the period and it remained relatively weak with Asia. Hence, compared to the share indicator, the intensity indicator attenuates the impression of a regional concentration of German exports during the Second Reich. On the import side, it is confirmed that the declining share of Europe in German imports is not due to a parallel shrinking share in world exports. Other factors brought about the gradual slowdown of the import intensity of Germany

³² Expression used by Drysdale, Garnaut, *op. cit.*

with Europe from 1.3 (1889) to 1.1 (1913). The picture of a diversification of imports is still reinforced by the apparent increase in the import intensities of other continents (America, from 0.7 to 1.0; Africa, from 0.4 to 1.2; Asia, from 0.3 to 0.7).

FIGURE 3. Intensity of German exports by continents 1889-2005

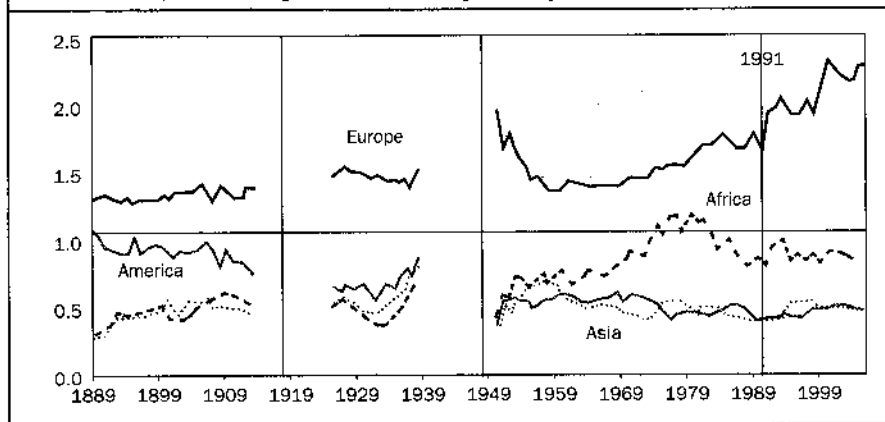
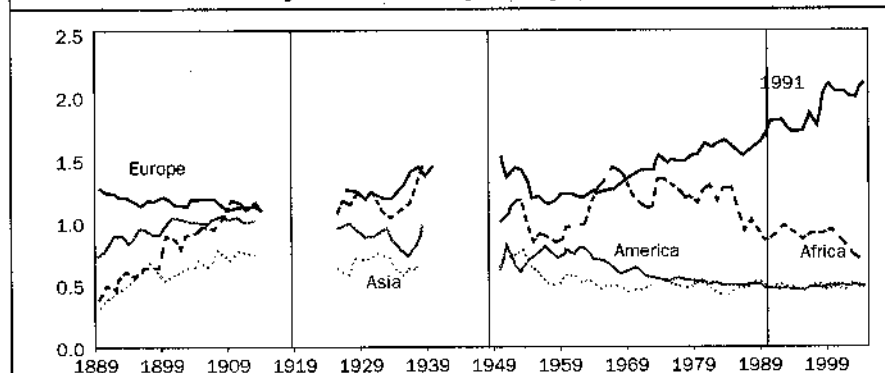


FIGURE 4. Intensity of German imports by continents 1889-2005



Sources: the calculation of trade intensity by continent results from the calculation of bilateral trade intensities which, in addition to statistics of German bilateral exports and imports, requires statistics of each partner's total exports and imports, and of world exports and imports. We have collected them over the period 1889-2004 from the following sources: *Statistisches Jahrbuch für das Deutsche Reich* (international appendix from 1903); Department of Commerce and Labor, *Statistical Abstract of Foreign Countries*, (1909); B. R. Mitchell, *International Historical Statistics*, 3 vol. (5th ed., 2003); *Statesman's Yearbook*; J-P. Smits, E. Horigs, J. L. van Zanden, *Dutch GNP and its Components 1800-1913*, (Groningen 2000) (for Dutch trade over 1889-1913); A. Maddison, "Growth and fluctuations in the world economy 1870-1960", *Banca Nazionale del Lavoro Quarterly Review*, (June 1962) (estimation of world exports and imports at current prices from the beginning of the 19th century); IMF, *International Financial Statistics*; United Nations, *Statistical Abstract*. The statistics have been converted into M/RM/DM using: *Statistisches Jahrbuch für das Deutsche Reich*; J. Schneider et al., *Währungen der Welt*, (Stuttgart 1991) (for Brasil and Argentina over 1889-1913); League of Nations, *Statistical Abstract*; IMF, *International Financial Statistics*. Since 1999, statistics in euros have been reconverted into deutschemarks at the rate of 1 € = 1.95583 DM.

The trade-intensity indicator should, therefore, make us revise our previous observations. Firstly, Europe as a whole looks less like Germany's privileged partner at the end of the nineteenth century; its dominant position in German trade was due to the fact that, at the time, Europe (excluding Germany) accounted for about 50 % of world trade. Secondly, it looks as if distance was less and less an obstacle to trade, as trade intensities with distant regions drew near 1.0. Thirdly, Germany's import intensities confirm that other factors, beside distance and the economic size of continents, led to an intensification of German purchases of extra-European goods.

The trade-share indicator reports a relative concentration of German trade on Europe until the 1930s and a limited involvement with America until the mid-1930s, and displays great volatility during the interwar period. The trade intensity indicator confirms the latter but not the former. As a matter of fact, German trade was relatively concentrated in Europe as early as 1925; in the following years, there was no major change on the export side and there was a reduction of the import intensity. As a result, what appeared in 1925 as a recovery of European trade back to the 1913 level underlined an over-representation of Europe in German trade at a time when the share of Europe (excluding Germany) in world trade was shrinking (from 45 % to 40 % for exports, from 51 % to 48 % for imports). In the next 13 years German exports turned away from extra-European continents, until they reached a breaking-point in 1932; any clear trend for the import intensity indices cannot be detected. Any conclusion from German trade intensities according to continents seems therefore hazardous. With due attention to trends in the share indicator, the operation was repeated using a classification of countries which reflects the types of trade agreements signed by Germany.

From 1925 until the onset of the economic crisis, German commercial policy was one of relatively free trade and the commodity structure of German trade reveals the primacy of economic factors. Its flows were primarily determined by the country's comparative advantage. In 1931, almost 75 % of German exports were finished manufactured goods (53 % in 1913) and 41 % of German imports were agricultural products (27 % in 1913).³³ This specialisation dictated a geographical structure of trade where

³³ Dedinger, *op. cit.*, pp. 224-232.

exports came from relatively more-developed European countries and imports came from extra-European countries specialised in agricultural production.

**TABLE 4. German Trade Intensities by Trade Agreements
during the interwar Period**

	Intensity of German exports (annual average)			Intensity of German Imports (annual average)		
	1925-31	1932-34	1935-38	1925-31	1932-34	1935-38
Clearing ³² (*)	2.3	2.0	2.9	1.8	1.9	2.6
Clearing ³⁴ (b)	1.8	1.7	1.9	1.5	1.5	1.7
of which: France	1.1	1.0	0.7	0.9	1.0	0.6
Paieiment (c)	0.7	0.7	0.5	0.7	0.6	0.5
of which: UK	0.6	0.5	0.4	0.5	0.4	0.5
ASKI (d)	1.0	1.1	2.0	1.0	1.0	1.6
United States	0.5	0.5	0.3	0.9	0.8	0.4
China	0.5	0.6	1.1	1.1	1.9	1.3

(*) Clearing agreements were signed over 1932-33 with Bulgaria, Czechoslovakia, Estonia, Greece, Hungary, Latvia, Romania, Turkey, Yugoslavia and Denmark.
 (b) Clearing agreements were signed over 1934-36 with Argentina, Austria, Chile, Finland, France, Iran, Italy, Lithuania, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland and Uruguay.
 (c) Payment agreements were signed over 1935-37 with Belgium, Canada, Great Britain, Ireland, Lebanon, New Zealand and Syria.
 (d) Ausländer-Sonderkonten für Inlandszahlungen set up in Devisen Banks to facilitate the development of compensation transactions with Bolivia, Brazil, Costa Rica, Ecuador, Guatemala, Mexico, Nicaragua, Paraguay, Peru, Salvador and Venezuela.

Sources: the lists of agreements were drawn up from *Monatliche Nachweise über den Auswärtigen Handel Deutschlands* (1930-1939); *Reichsgesetzblatt*; United States Tariff Commission, *op. cit.*; A. T. Bonnell, *op. cit.*
 For the data, see *Figures 3 and 4*.

The collapse of trade in 1932 perceptible in *Figures 3 and 4* is attenuated in *Table 4* by the calculation of an annual average, whereas the specific character of the 1935-38 period is more homogenous. At this time German trade flows turned to preferential treatment countries which had signed trade agreements with Germany and turned away from perceived hostile nations, whatever their geographical location. The weak impact of distance over this period is illustrated by the low intensity indices of German neighbours (France, United Kingdom) and the high intensity indices of Latin American (ASKI³⁴) or Asian (China) countries.

³⁴ See definition in *Table 4*.

The case of China seems of particular interest and deserves a more careful analysis. In the end, no process of regionalisation or diversification is detectable over this interwar period. Economic factors prevailed in the geographical distribution of trade under the Republic of Weimar, but political ones under the Third Reich. The divergence between exports and imports over the first period, together with the dominance of political factors over the second period, suggest that distance played an increasingly minor role in German bilateral trade.

The phase between 1950 and 1990 is easier to describe. Firstly, the 1950-57 period stands out as the one during which share figures were clearly accentuated by the intensity figures. In the first years, the intensity of the FRG's trade with Europe appears abnormally high, only to collapse after 1957 when the intensity of trade with America and Asia picked up. It is confirmed that the fall of the European share in German trade in the post-war period was not caused by a fall in the European share in world trade but by a reorientation of trade flows induced by two main factors: on the one hand, the partition of Germany and the erection of the Communist bloc; on the other hand, the disorganisation of trade relations in non-Communist Europe after the war³⁵ which brought about a relative intensification of trade relations with Latin American countries.³⁶ From 1958 onwards, the intensity indicators shadow the share figures, but the trend towards an intensification of ties with Europe is greatly enhanced as the convexity of the European curves shows. This means that the European share in German exports and imports rose at a more rapid pace than the overall European share in world trade. Relatively slack ties with America in this period are also confirmed, as the American share in German trade fell because of factors other than a declining share in world trade. This is especially remarkable for the United States which were a

³⁵ As quoted in United Nations, *Etude sur la situation économique de l'Europe*, p. 93 : "The contraction of intra-European trade is one of the main reasons for Europe's exceptional needs for overseas products after the war."

³⁶ The relative increase of the United States' share in German trade over 1950-57 (table 2) is then more a result of the increasing share of the United States in world trade, and the relative decrease of Latin American share in German trade is, in fact, inferior to the decline of the Latin American share in world trade. They remain relatively "privileged" partners in the post-war period.

“normal” partner of the Second Reich and are today largely under-represented in the Federal Republic’s trade (*Table 5*). Surprisingly, the Asian curves do not show a rising trend from the 1970s onwards as the share curves do. On the contrary, the outstanding fact is that German trade intensity with Asia has now returned to the relatively low level it showed at the end of the nineteenth century. Asia as a whole remains under-represented in German trade, even if notable exceptions can be identified (e.g. China and Japan on the import side in *Table 5*).

Obviously the tendency towards the regionalisation of German trade did not begin in the interwar period, but at the end of the 1950s. It levelled off from the beginning of the 1990s, despite trade with Central and East European countries becoming more intense (*Table 5*).

TABLE 5. German Trade Intensities by Countries and Regions, 1889-2005

	Intensity of German exports (annual average, %)				Intensity of German imports (annual average, %)			
	1925-1938	1950-1957	1958-1990	1991-2005	1925-1938	1950-1957	1958-1990	1991-2005
	Europe	1.2	1.4	1.4	2.0	1.1	1.2	1.5
CEEC (*)	-	2.4	0.6	2.4	-	2.0	0.6	3.0
USSR-Russia	2.2	2.1	0.4	1.5	2.6	1.9	0.4	1.4
Rest of Europe (†)	1.2	1.2	1.6	1.9	1.0	1.1	1.7	1.7
America	0.9	0.6	0.5	0.4	0.9	0.9	0.6	0.5
USA	1.0	0.4	0.5	0.5	1.0	0.7	0.6	0.6
South America (‡)	1.0	1.3	0.8	0.6	1.4	1.3	0.9	0.6
Asia	0.4	0.5	0.5	0.5	0.6	0.6	0.5	0.5
NIC(§)	-	-	0.3	0.3	-	-	0.4	0.3
Japan	0.8	0.4	0.2	0.3	0.2	0.1	0.3	0.6
China	0.5	0.7	0.5	0.4	0.4	1.4	0.3	0.8

(*) Bulgaria, Czechoslovakia, Czech Republic, Slovak Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovenia.

(†) Europe without CEEC, USSR-Russia and Turkey.

(‡) Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay and Venezuela.

(§) Newly Industrializing Countries: Hong Kong, Korea, Singapore and Taiwan.

Source: Figures 3 and 4.

Returning to the long-term view, the concentration of German trade in Europe since 1958, both exports and imports, seems indisputable. The relative stability of the European share in German exports since the 1960s was triggered by the declining share of Europe (excluding

Germany) in world imports – close to 45 % at the beginning of the 1960s, about 30 % at the beginning of the 2000s. According to the intensity indicators, German exports to Europe exhibit a relative increase.

Can this new-found concentration of trade with Europe be assigned to the changing definition of German territory? The partition of Germany and the loss of trade relations with Eastern European countries should have led to a definite fall of its trade intensity with Europe once and for all. What is observed, despite the expected collapse of trade intensity with Eastern Europe, is the continuous increase of trade intensity with the rest of Europe, which more than compensated trade losses with the East. What remains to be explained is this increased intensity of trade with the “rest of Europe”. The first obvious explanation is the process of European economic integration which began in 1958.

4. The Impact of European Economic Integration in the Post-1950 Era

It is usually assumed that the process of European economic integration has a great impact on intra-European trade. Our aim in this last section is to assess the impact on German trade relations of the successive enlargement of European integration. The theoretical effects of economic integration are well-known: the creation of a customs union, i.e. the removal of all trade barriers between union members and the adoption of a common commercial policy, may lead to increased trade flows inside the union and divert commerce away from countries outside the union; the common market, which frees factor mobility across the union, creates additional trade flows in the zone, due to the complete elimination of non-tariff trade barriers and to enhanced economic efficiency through a more rational reallocation of resources; monetary union further boosts intra-zone trade by eliminating the remaining impediments to trade. European economic integration – a political factor – must, therefore, have brought about major changes in the geographical structure of German trade. Using a simple graphical method, we can examine whether European integration led to a relative intensification of German trade links with the Union’s members.

FIGURE 5. Intensity of German exports with regions of Europe 1889-2005

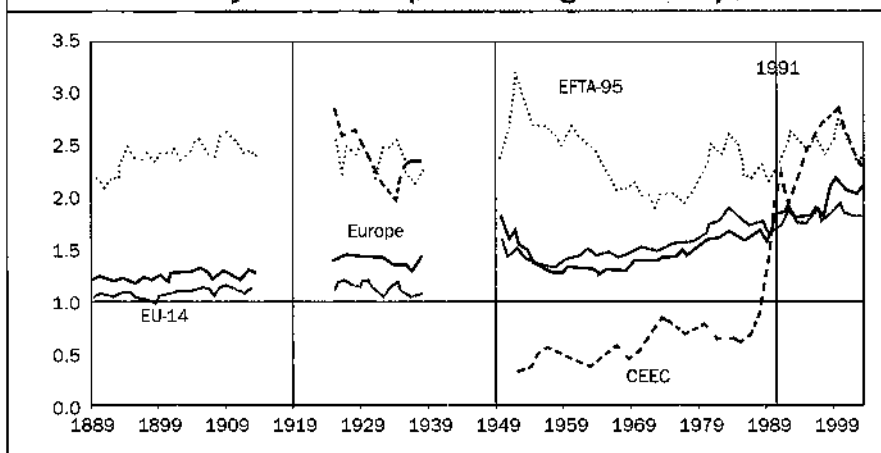
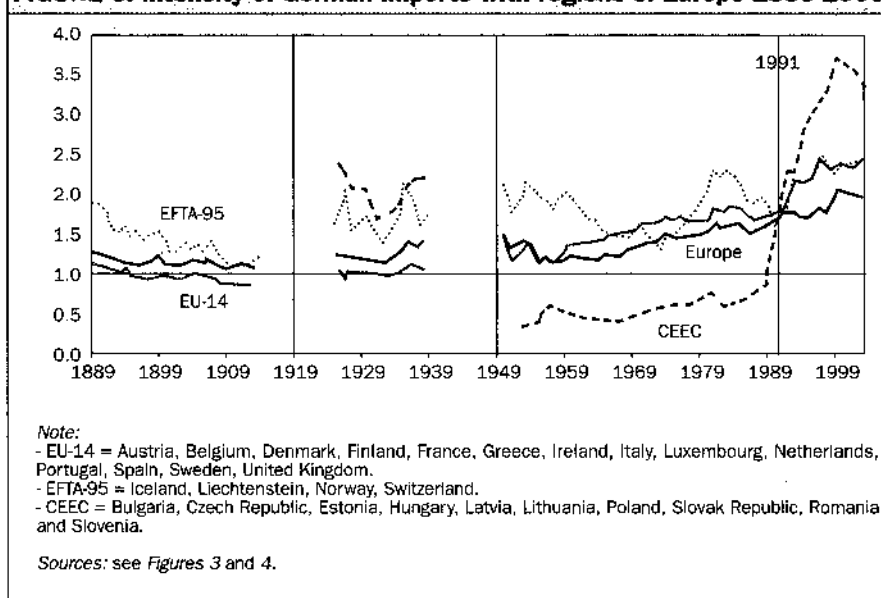


FIGURE 6. Intensity of German imports with regions of Europe 1889-2005



If European integration lies at the heart of the observed intensification of German trade with Europe, then the “Europe” curve should parallel the “European Union” curve. In particular, Germany should develop more trade with new and old members, as the European Community enlarges and economic integration deepens. Europe has been split

accordingly into three groups: EU-14, EFTA-95 and CEEC⁵⁷. *Figures 5 and 6* confirm our hypothesis: the “Europe” and “EU-14” curves show a notable parallelism from 1957 to 1989. The evidence also confirms the termination of the intensification phase since the beginning of the 1990s, which can clearly be assigned to changing German trade patterns with EU-14. Trade intensity with EFTA-95 falls sharply from the 1950s until the 1970s, obviously a repercussion of trade diversion with the EEC; but it rapidly resumes its former position, perhaps the result of free-trade agreements between EEC and EFTA in the 1970s. Note that the rise in German trade intensity with CEEC countries began before 1989, about 1986 in fact. Trade relations between East and West improved with Gorbachev’s accession to power in March 1985 and *perestroika*, with the joint declaration signed between the EC and the CMEA in June 1988 which enabled CMEA countries to sign or renegotiate bilateral trade agreements with the EC.

Obviously the impact of European integration on German trade looms very large in these developments. The EU-14 bloc has then been split into four groups which correspond to the successive enlargement steps of the European Economic Community from 1957 to 1995. It is assumed that if European integration were, indeed, the engine, trade intensity indicators should pick up after the admission of every batch of new members.

Figures 7 and 8 show that the creation of the EEC in 1958 immediately led to a rise of German trade intensity with the EEC-58 group and had repercussions on the EU-14 curve. Furthermore, a parallelism between the two curves over this post-war period is clearly apparent. The 1973 enlargement also brought forth a pronounced increase of the intensity curves, but the impact on the EU-14 curve is less visible. The incidence of the two following enlargements on trade intensity is far from obvious. If we take a view of the entire period 1950-2005, it appears that the minima of the EEC-86 and EEC-95 intensity curves do not correspond to the entry of the countries in the EEC: Germany began to intensify imports

⁵⁷ Beyond these three regions, Europe also includes Turkey and the USSR. For the definition of the regions, see *Figures 5 and 6*.

FIGURE 7. Intensity of German exports with the EEC countries 1950-2005

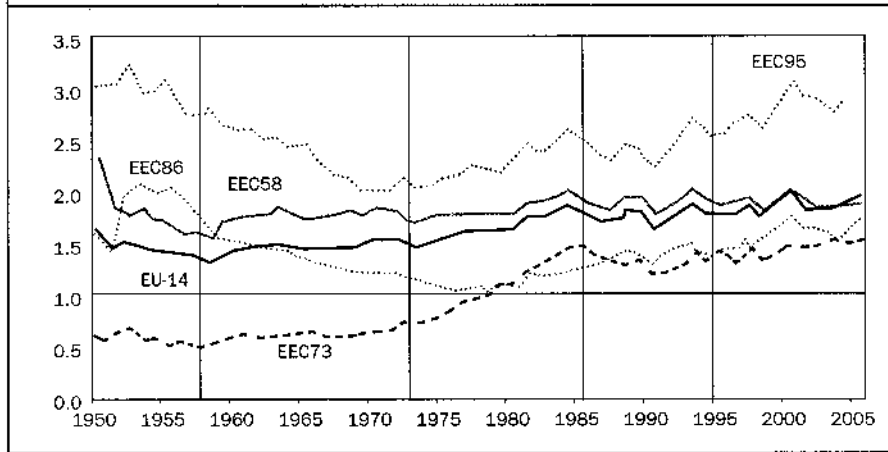
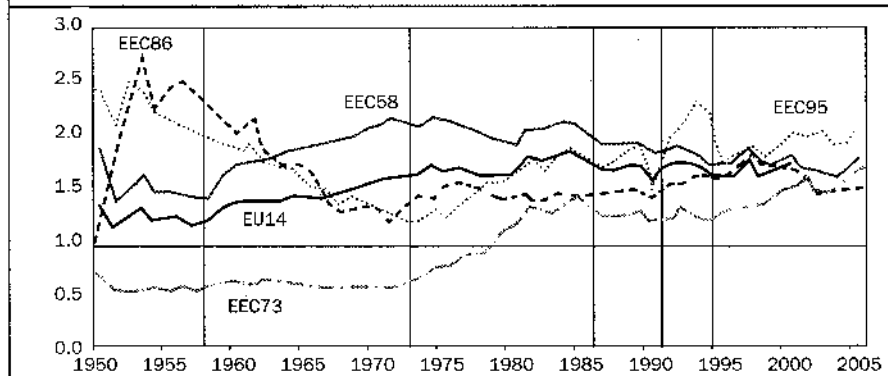


FIGURE 8. Intensity of German imports with the EEC countries 1950-2005



Note:

- EEC-58 = Belgium, France, Italy, Luxemburg and Netherlands.
- EEC-73 = Denmark, Ireland and United Kingdom.
- EEC-86 = Greece (becomes member of the EEC in 1981), Portugal and Spain.
- EEC-95 = Austria, Finland and Sweden.

Sources: see figures 3 and 4.

from EEC-86 as soon as 1971 (1975 for exports), and the intensification of trade ties with EEC-95 was effective since 1971-73. As a result, European integration had an impact on the intensification of German ties with Europe, especially through the intensification of trade relations with new member countries after 1957.

Bringing the disaggregation process to its end, trade with the original

EEC founder countries presents unexpected developments (*Figures 9 and 10*). The rise of the EEC-58 curve immediately after the Treaty of Rome is essentially due to the opening of the French market. The intensity of German trade with other EEC-58 members does not change on the export side, and registers a relatively slight increase on the import side. Even more remarkable is the course of the French curve over 1889-1913 compared with that of 1959-2005: before 1913, France was clearly "under-represented" in German trade and became "over-represented" after 1958 (the average intensity of German trade with France is 0.6 over 1889-1913, 1.8 over 1959-2005). This looks very different from the usual story about Franco-German trade links before 1913. Poidevin's major work showed that France and Germany enjoyed rather good economic relations in this period: France was the Second Reich's fifth commercial partner and Germany the Third Republic's third commercial partner.³⁸ But, given that France had a share in world trade of about 9%³⁹, a 5.5% share of German trade seems relatively small. In fact, compared with Germany's other European partners, France had the lowest intensity indices over the 1889-1913 period.

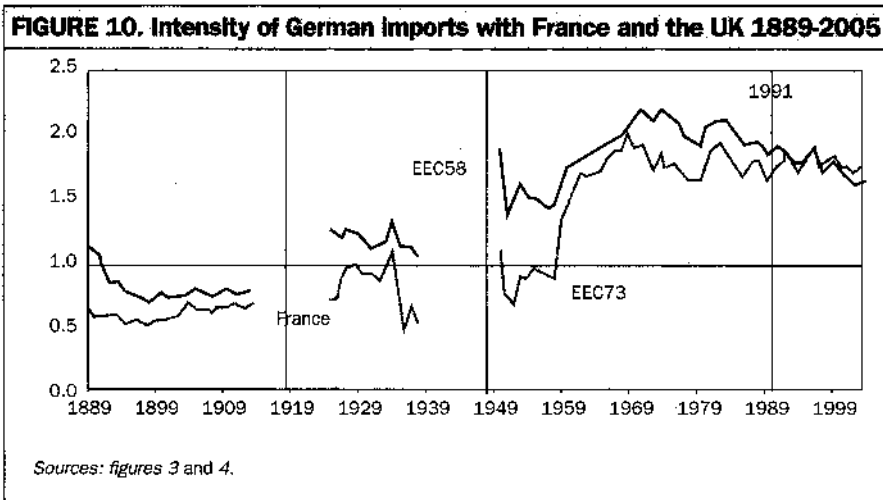
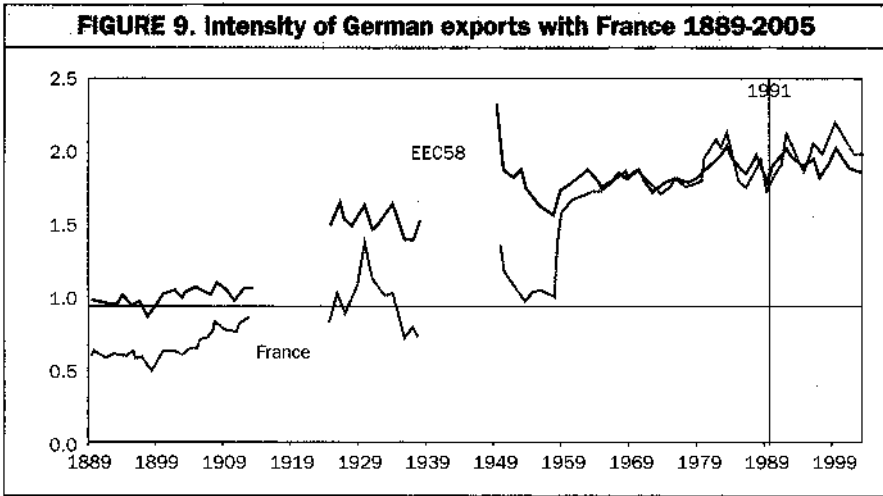
What was the role played by trade policy in these two situations? Before 1913, Franco-German trade relations were based on the Treaty of Frankfurt (May 1871) which included the most-favoured-nation clause. The main trade policy changes over the period were the Caprivi treaties in 1891-94⁴⁰ and the Méline Tariff in 1892, which had many repercussions on both sides of the border. Poidevin comes to the conclusion that neither country was subjected to special discriminatory treatment and that trade policy measures over the period did not entail any major change in bilateral trade flows.⁴¹ Nevertheless, he evokes a less-known event that may shed some light on the question. The idea of a customs union including France and Germany was launched by a French economist as

³⁸ R. Poidevin, *Les relations économiques et financières entre la France et l'Allemagne*, pp. 107-132.

³⁹ Annual average share in world trade (excluding Germany) over the 1889-1913 period.

⁴⁰ From 1891 until 1894, Germany concluded conventional trade agreements with Austria-Hungary, Italy, Belgium, Switzerland, Serbia, Romania and Russia.

⁴¹ In fact, the French curve shows no trade diversion in the 1890s.



early as 1879, and was discussed in journalistic and political circles until the 1890s. It came to nothing because “*French opinion was not ready to accept a customs union with Germany... twenty years after the 1870 German victory*”.⁴² This suggests that a psychological factor nurtured by a particular political context may have been responsible for a relatively high resistance to bilateral trade.

⁴² Poidevin, *op. cit.*, p. 99.

After 1950, it is generally admitted that the sudden change in Franco-German trade relations in 1959 was due to the creation of a European customs union.⁴³ But why was the effect so great on trade flows between Germany and France and not on those between Germany and the other member countries? This question obviously deserves a thorough analysis, but we may stress that, in contrast to the pre-1913 mutual diffidence, closer economic relations were actively sought by German and French industrialists and governments between 1949 and 1958.⁴⁴ It is worth recalling that the creation of the EEC was not only an attempt to reap purely economic gains via enhanced intra-trade relations, but was also an attempt to pacify relations between Germany and its former enemies. In 1946 Churchill had said: "*The first step in the re-creation of the European family must be a partnership between France and Germany*".⁴⁵ Such an aim was, in effect, achieved as, for the first time in a century, European integration fostered privileged commercial relations between Germany and France.

Thus the idea that European economic integration – a trade-political factor – should be the very cause of the observed concentration of German trade in Europe is a debatable point. A more detailed analysis shows that the most visible impact of European trade integration on German bilateral trade flows concerns France, whose commercial relationship with Germany cannot be separated from its specific political relationship; Germany intensified its trade with future members of the EEC before membership (EEC-86, EEC-95), as she did with non-EEC members (EFTA-95).

5. Conclusion

The special case of Germany has far-reaching lessons for long-term globalisation and the European integration process. The long-term

⁴³ See Buccheim, *Die deutsch-französischen Wirtschaftsbeziehungen*. The first measures of liberalization were applied on 1st January 1959.

⁴⁴ See Möller, Hildebrand (eds), *Die Bundesrepublik Deutschland und Frankreich*.

⁴⁵ A 'United States of Europe', Churchill's speech at Zurich University, 19 September 1946.

structure of German trade clearly brings a negative answer to the question of whether trade relations are more diversified today than a century ago. Changing borders alone cannot explain an outstanding new phenomenon since the 1960s: the concentration of German trade flows with Europe. This conclusion is not based on the traditional calculation of the trade-share indicator, but on the trade-intensity indicator, which takes out the incidence of the relative wealth of the partner country. This result can be compared with Anderson and Norheim's study⁴⁶, where the two authors estimate European trade-intensity indices from 1830 to 1990 and discover that, after a period of stability in the nineteenth century, the index of intensity of intra-European trade has risen steadily since World War I, from 1.1 to 1.5, and that, correspondingly, the intensity of Europe's trade with the rest of the world has fallen gradually. The main reason advanced to explain this evolution is not the emergence of a new commercial political factor but the disappearance of an old one: imperial trade preferences. But this cannot apply to the case of Germany.

The other possible political explanation of the increased regionalisation of trade since the 1950s is the proliferation of regional preferential agreements which, in the case of Europe, began with the creation of a customs union. Contrary to the conventional view, the German case shows that the trade creation effect of European trade integration is neither obvious nor systematic. But it also points to the fact that the EEC is not a purely endogenous phenomenon⁴⁷: something really new occurred in the Franco-German trade relationship after 1958. All this suggests that the actual long-term effects of the European integration process on the direction of trade flows would deserve a much more thorough analysis which would take into account factors such as foreign policy or public opinion. Nevertheless, none of these factors can explain the lasting intensification of German trade with the whole of Europe, either EEC or non-EEC, and the aloofness towards the United States, all the more remarkable in an historical perspective. Here we reach the

⁴⁶ Anderson, Norheim, "History, geography and regional economic integration", pp. 19-51.

⁴⁷ Ritschl, Wolf, *op. cit.* They stress the "impressive degree of endogeneity" of the EEC of six members.

limitations of the graphical method. A more sophisticated instrument is necessary to estimate the impact of other variables on the current regionalisation of trade. Besides political factors, geographical and economic ones should be explored more in detail. In particular, the observed changes in German trade structure could also be explained by a change in the influence of distance⁴⁸ or by a change in the economic determinants of trade.

Studying the German economy over the long run is thus very rewarding. For more than a century, Germany stood as a driving force in international trade and as the centre of gravity of Europe. She is thereby a privileged case for the analysis of the causes of structural changes in long-term trade flows and, more particularly, of the still unrecognised effects of European integration.

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⁴⁸ Economists have recently unearthed a paradox: a rising impact of distance on bilateral trade in the post-1950 era. For a synthesis of the literature, see Disdier, Head, *Exaggerated Reports on the Death of Distance*. The so-called "distance puzzle" has also been stressed in Coe, Subramanian, *et al.*, *The Missing Globalization Puzzle*.

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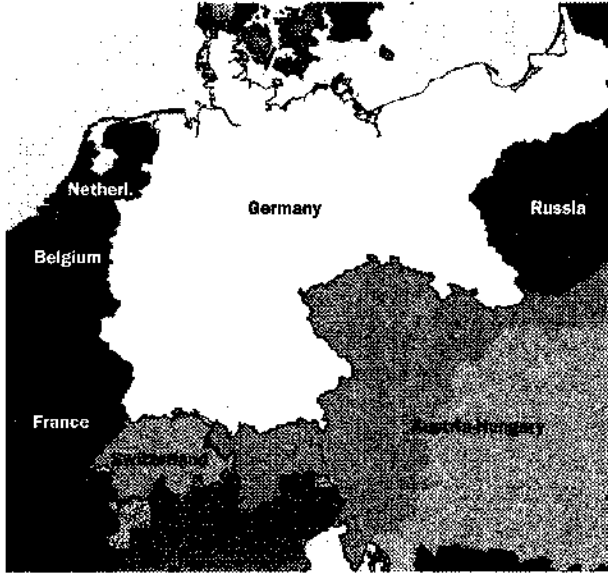
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Appendix

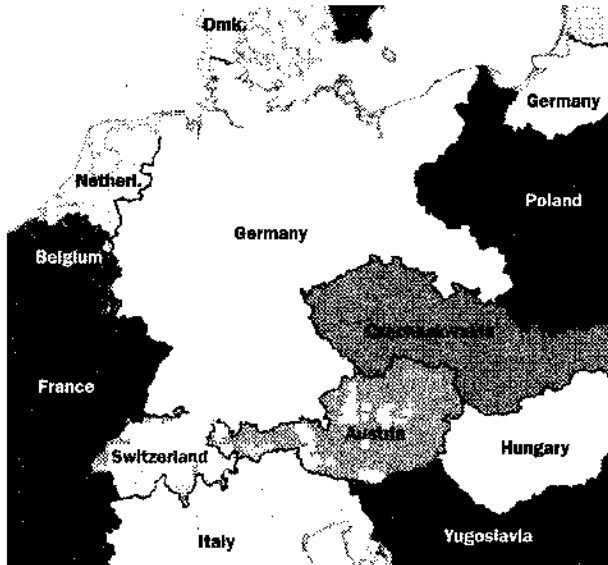
Germany's territorial changes since 1871

FIGURE 11 - Second Reich (1871-1918)



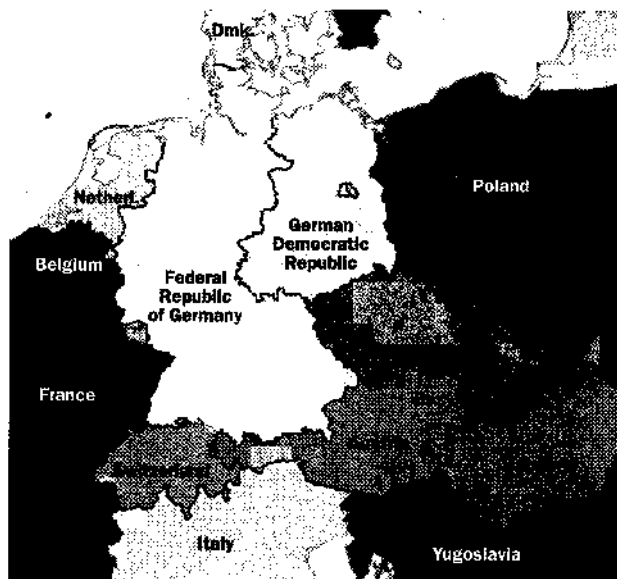
Source: A.Kunst, IEG-Maps, 2000.

FIGURE 12 - Republic of Weimar/Third Reich



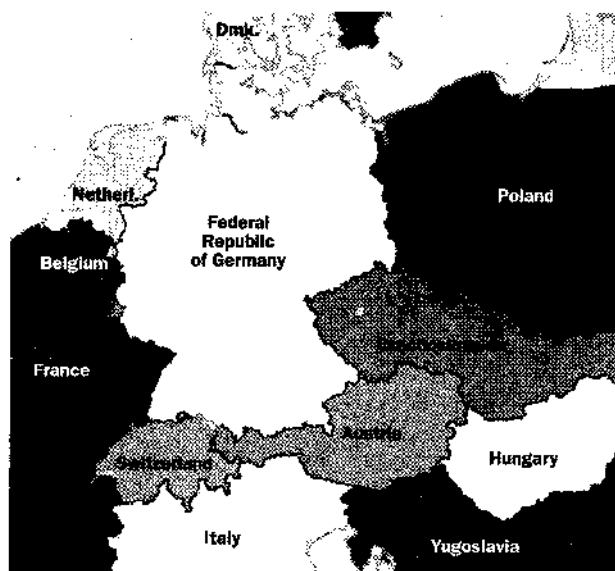
Source: A.Kunst, IEG-Maps, 2000.

FIGURE 13 - Federal Republic of Germany (1949-1989)



Source: A.Kunst, IEG-Maps, 2000.

FIGURE 14 - Unified Federal Republic of Germany (1990)



Source: A.Kunst, IEG-Maps, 2000.

