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From Deindustrialization to a Reinforced Process of Reshoring in Europe. Another Effect of the COVID-19 Pandemic?

Xosé Somoza Medina 

Department of Geography and Geology, University of León, 24071 León, Spain; somoza@unileon.es

Abstract: In the middle of the 20th century, economic theories predicted an evolution towards development that involved the tertiarization of the productive structure, with industry losing weight to the benefit of commerce and services. This model justified the deindustrialization of countries when, promoting globalization, large companies relocated production phases to third countries to take advantage of lower labor costs. Since the Great Recession and aggravated by the COVID-19 pandemic and other economic factors, globalization seems to be entering a new phase in the third decade of the 21st century, in which Global Value Chains are changing to become even more regional and reshoring is a strategy increasingly employed by large European and North American companies. In the medium term, this global change will have a considerable impact on land systems on a global scale in what could be a new reindustrialization of the old continent. The article presents an investigation carried out on the impact of reshoring in leading European companies in six different industrial branches. The results of the research show how the relocation of the industry in the most developed countries is an incipient trend practiced by the leading European companies.

Keywords: deindustrialization; tertiarization; reshoring; Europe; globalization



Citation: Somoza Medina, X. From Deindustrialization to a Reinforced Process of Reshoring in Europe. Another Effect of the COVID-19 Pandemic?. *Land* **2022**, *11*, 2109. <https://doi.org/10.3390/land11122109>

Academic Editor: Richard C. Feiock

Received: 3 November 2022

Accepted: 21 November 2022

Published: 23 November 2022

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1. Introduction

The tertiarization of the economy is a process of change in the productive structure of a region or country that results in the pronounced growth of the service sector. According to classical economic theories, this situation occurred in the most advanced countries and showed its positive evolution compared to other territories that were still in earlier stages of their development, characterized by the greater weight of their secondary, or even primary, sector.

Tertiarization in Europe was preceded by a phase of deindustrialization that began in the 1980s and generated serious periods of unemployment crisis and social conflict [1,2]. Industrial relocation, or offshoring, also contributed to this dynamic, when large companies took advantage of lower transport costs and falling tariffs to move their factories to countries with lower labor costs.

This generated changes in land systems on a planetary scale, with large regions dedicated to the production of raw materials and food, other territories specializing in the industrial manufacture of all kinds of products, and a third group of countries in which the economy was dominated by the exchange of goods and services [3].

At the beginning of the third decade of the 21st century, this general model has been threatened by both external and internal factors. The globalization of the economy has shown all its imperfections during the COVID-19 pandemic [4], although there are many other elements that question the continuity of the model, from global climate change to the sustainability of the planet, the survival of our cultural diversity, the increase in the price of fuels and insurance, or the global crisis of the supply chain.

What is certain is that the world's main economies are offering aid to large companies to relocate their factories within their own borders. Reshoring has been encouraged since before 2019, but as a result of the shortage of essential products during the first months

of confinement and the later semiconductor crisis, the European Union has set out to promote its industrial capacity by defending European technological sovereignty and the geostrategic nature of this policy [5].

This article examines this process of change in the European land systems, which aims to reindustrialize old Europe, discussing academic and political positions on the issue and analyzing recent data on reshoring between Europe and the rest of the world. The results of the research show that the COVID-19 pandemic has accelerated the relocation process in Europe, especially in certain industrial sectors, and that the reshoring process will continue to increase in the coming years.

The article is divided into five sections. After this brief general introduction, the second section delves into the economic theories that advocated the process of deindustrialization as a stage in the progress of European nations, and then characterizes the role of industry in the world's main economies. The following section on methodology explains the main characteristics of the analysis carried out to answer the research question, while the fourth section presents the results obtained in the investigation. Finally, the final section analyses the results and proposes new lines of research to continue advancing the knowledge of this particular phenomenon of global relocation of industry.

2. Deindustrialization of Europe. Was Colin Clark Wrong?

The theory that divides the productive sectors into primary, secondary, and tertiary was formulated in 1940 by the British economist Colin Clark, who predicted the evolution of the richest countries towards a service economy [6]. According to this professor, the least developed countries based their economies on the production of raw materials and were therefore at the first stage of his theory of evolution; they were primary countries (primary sector). According to this evolutionary theory, as the development of the national economy progressed, it became dominated by manufacturing activities, which corresponded to a second evolutionary stage, or in other words, economies based on the secondary sector. From that moment on, development was marked by the increase in trade and services, until reaching a final stage of full development in which the country's economy depended fundamentally on these activities, thus becoming a country in the third and final evolutionary stage (tertiary sector).

Today, the evolution of the economy in many countries contradicts Colin Clark's theory, but his classification by sectors of activity continues to be used throughout the world. The main criticisms are the existence of many countries where the expansion of the service sector does not mean development, the current difficult location of many activities and that some contemporary theorists speak of new economic sectors, such as the quaternary or the quinary [7].

Nicholas Kaldor was one of the first economists to contradict this theoretical model and postulate the leadership of the industry in economic growth [8]. According to this economist, the industrial growth of a country is determined by the demand coming from exports, generating very dynamic economies of scale, since the faster the growth of industrial exports, the faster the growth of their productivity. For this reason, he promoted the growth of the industrial sector both in rich countries (he was an advisor to the British Labor government) and in the developing countries with which he collaborated.

Nevertheless, the process of deindustrialization in old Europe continued and the British model was the first to merit academic attention, with the work of Ajit Singh [9], who explained British deindustrialization as a process of structural change to achieve a more efficient and competitive sector. However, the progress-related view of deindustrialization was challenged in the work of Rowthorn and Wells [10], which distinguished for the first time between a positive and a negative type of deindustrialization. In the former, typical of the more developed countries, the productivity of the sector grew so fast that instead of increasing production, jobs were cut in order to increase profits, although the employment rate was generally maintained as the working population was expelled from industry quickly found employment in the growing service sector. Deindustrialization was,

paradoxically according to this work, a symptom of economic success [10]. Deindustrialization was considered negative when it was the result of real difficulties in the sector, either due to an increase in productivity or a fall in production, which led to a real increase in unemployment, as this population could not find employment in another sector. In 2014, Fiona Tregenna [2] also pointed out these two different types of deindustrialization (Figure 1).

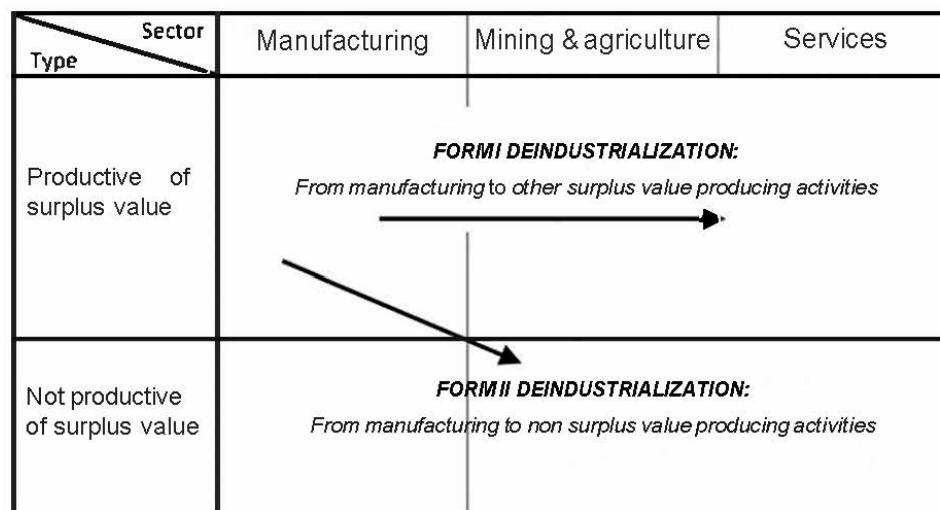


Figure 1. Two forms of deindustrialization according to Fiona Tregenna. Source (adapted from [2]).

Nicholas Crafts, in 1996, published his work entitled “Deindustrialization and economic growth”, referring to the British case, in which he highlighted the process developed in the 1980s and led by the government of Margaret Thatcher, in which the industrial policy reforms caused a strong response from the trade unions, a sharp rise in unemployment and the closure of numerous factories, but led to a change in the structure of the sector, improving productivity and the development of the branches with a greater emphasis in innovation and new technologies [11].

Later, Dasgupta and Singh himself, in 2006, published a paper entitled “Manufacturing, Services and Premature Deindustrialization in Developing Countries”, in which they analyzed data from 48 countries, establishing that the process of deindustrialization, as a net or relative loss of jobs in the sector, occurred in these countries despite not having reached the level of development of the countries that had deindustrialized in previous decades. In these cases, the population that was previously employed in the industrial sector moved into the informal sector or became unemployed [12].

Finally, Gabriel Palma [13] identifies four triggers of deindustrialization: first, an inverted U between industrial employment and per capita income, typical of the most developed countries, which generates a decline in employment. Second, a continuing decreasing relationship over time between per capita income and industrial employment, which eventually generates the same dynamics. Third, a reduction in industrial employment is related to overcoming an economic crisis, in which new jobs are produced in the third sector. Finally, four, the phenomenon known as “The Dutch-Disease”, which refers to the process of deindustrialization caused by the local development of a particular element, whether a natural resource, as happened in the Netherlands in the 1960s with the discovery of major natural gas fields [14] or other sub-sectors such as the development of finance, the construction sector or tourism [15].

3. Reshoring and Policies to Promote the Reindustrialization of the USA and Europe

Globalization, at least as it was self-interestedly defined until 2019, meant the progress of the world economy based on services, transport, and trade between all parts of the globe. As global society homogenized and distances shortened by the technology and transport

revolution, countries specialized on a planetary scale, with industrial production being relocated to Southeast Asia, while tertiary and quaternary functions were concentrated in the more developed countries [3]. For its part, the production of raw materials was relegated to the poorest countries, where more permissive legislation did not hinder all kinds of inputs, pesticides, or extractive practices. In between, a growing list of countries remained in an intermediate position, as producers of goods and services without high added value and consumers of global products.

In just a few years, many industrial companies delocalized their production to reduce costs in order to be able to compete in the market, with the consequent destruction of thousands of jobs or were forced to close down due to the lack of realistic expectations of being able to continue. Europe deindustrialized and promoted the development of the tertiary and quaternary sectors (Figure 2). However, with the effects of the Great Recession, the real possibility that the industries that had left and the industrial jobs that had disappeared as a result of globalization would return to the developed countries in crisis began to be discussed, more from politics than from economics.

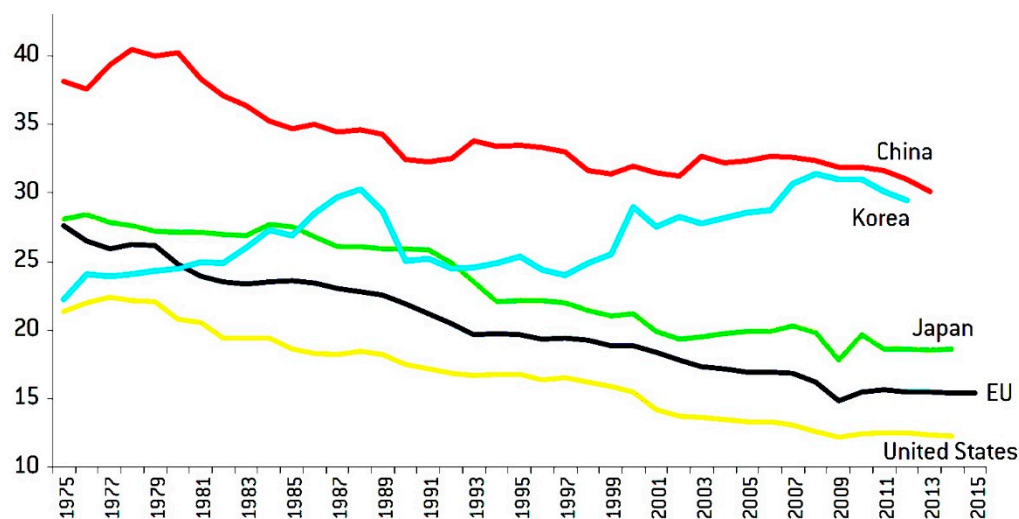


Figure 2. Manufacturing's share of value added, 1975–2015. Source (adapted from [16]).

These ideas about a new regionalization of globalization, which would return industrial primacy to the most developed countries, began to be discussed in the United States in the second decade of the 21st century [17], with concrete actions that would limit its deindustrialization and promote “reshoring”, also known as “backshoring”, or “onshoring”, which implied the return of industrial activities within national borders [18,19]. These relocation proposals were supported by domestic policies in both the Obama and subsequent Trump administrations, with the aim of increasing the industrial weight of the United States. Something similar happened in European countries such as Italy, France, and the Netherlands, and specific documents such as the European Commission’s 2012 communication “A stronger European industry for growth and economic recovery” [20] or the one approved by the European Parliament in 2014 “For a European industrial renaissance” [21], explicitly aimed to increase the industrial weight of European GDP to 20%.

As Figure 3 shows, some European industries have in recent years “repatriated” industrial processes that were offshored in the past. The Eurofound report “Reshoring in Europe: Overview 2015–2018” [22] found that offshoring was still the dominant process, but that more and more companies, motivated by a range of factors (Figure 4), were opting for global reorganization that brought phases of production back to European countries. Factors justifying this move included: delays in supply chains, automation of the production process, loss of quality, proximity to customers, the “Made in” effect, in-country know-how, flexibility, the change in total outsourcing costs, logistics costs, or the reduction

of the wage gap between countries. This growing importance of reshoring is also noted by Tate et al. [17], who verify these strategic decisions in 40% of the 319 US companies investigated, while Dachs, Kinkel, and Jäger [23] report a small but growing percentage among the 1700 companies studied located in Germany, Austria, and Switzerland (Figure 4).

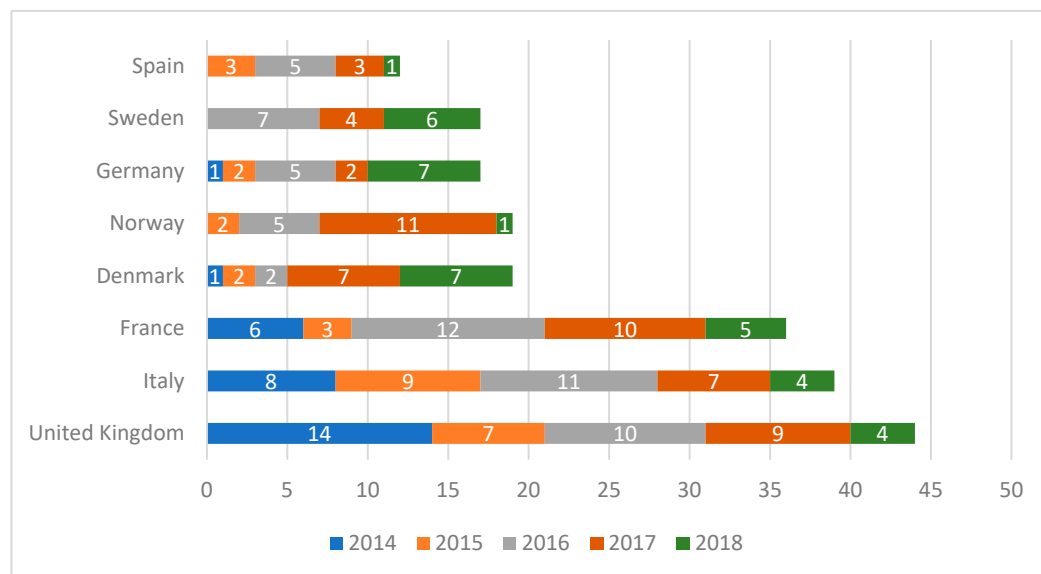


Figure 3. Annual distribution of backshoring operations in countries with more than 10 cases in the Eurofound report “Reshoring in Europe: Overview 2015–2018”. Source: (adapted from [22]).

In an article published by the Norwegian geographers Henrik Brynthe Lund and Markus Steen [24], they conclude that the advance of industrial technologies (automation, digitalization, Industry 4.0, internet of things, etc.), play a decisive role in the repatriation of industrial production processes. This process has not yet had a substantial impact in high-cost countries, although the number of companies carrying out this internal reorganization is growing in the United States, Germany, and the United Kingdom. For the authors, rather than defining specific policies that stimulate backshoring, more generic innovation policies should be promoted, focusing on digitalization, robotization, and the improvement of professional skills, which will lead to an increase in productivity and indirectly stimulate the repatriation of production processes. In this way, the core countries will become attractive spaces for the location of the manufacturing processes of their national companies.

In this regard, the opinion of the European Economic and Social Committee on “The return of industry to the EU in the context of reindustrialization” of April 2014 [25] stated that in order to halt the EU’s economic decline, it was essential to relaunch both high-tech and low-tech manufacturing industry, and in this context, industrial “reshoring” should be the strategy to be followed in the coming years, as part of an integrated and sustainable European reindustrialization policy, focusing on investment, technology, entrepreneurship, education, innovation, research, energy prices, infrastructure and trade [25].

This is also the approach of another report requested by the European Parliament, entitled “Post COVID-19 value chains: options for reshoring production back to Europe in a globalized economy”, published in March 2021 [26], which again stresses technological sovereignty, the importance of the repatriation of strategic industries and the industrial renaissance of old Europe (Figure 5).

The European Parliament report on value chains in the post-COVID-19 era mentioned the environmental costs of fragmented and multiple global supply chains and just-in-time production models, which are not invoiced within the price of the products, in such a way that the final market price does not reflect the social costs of production.

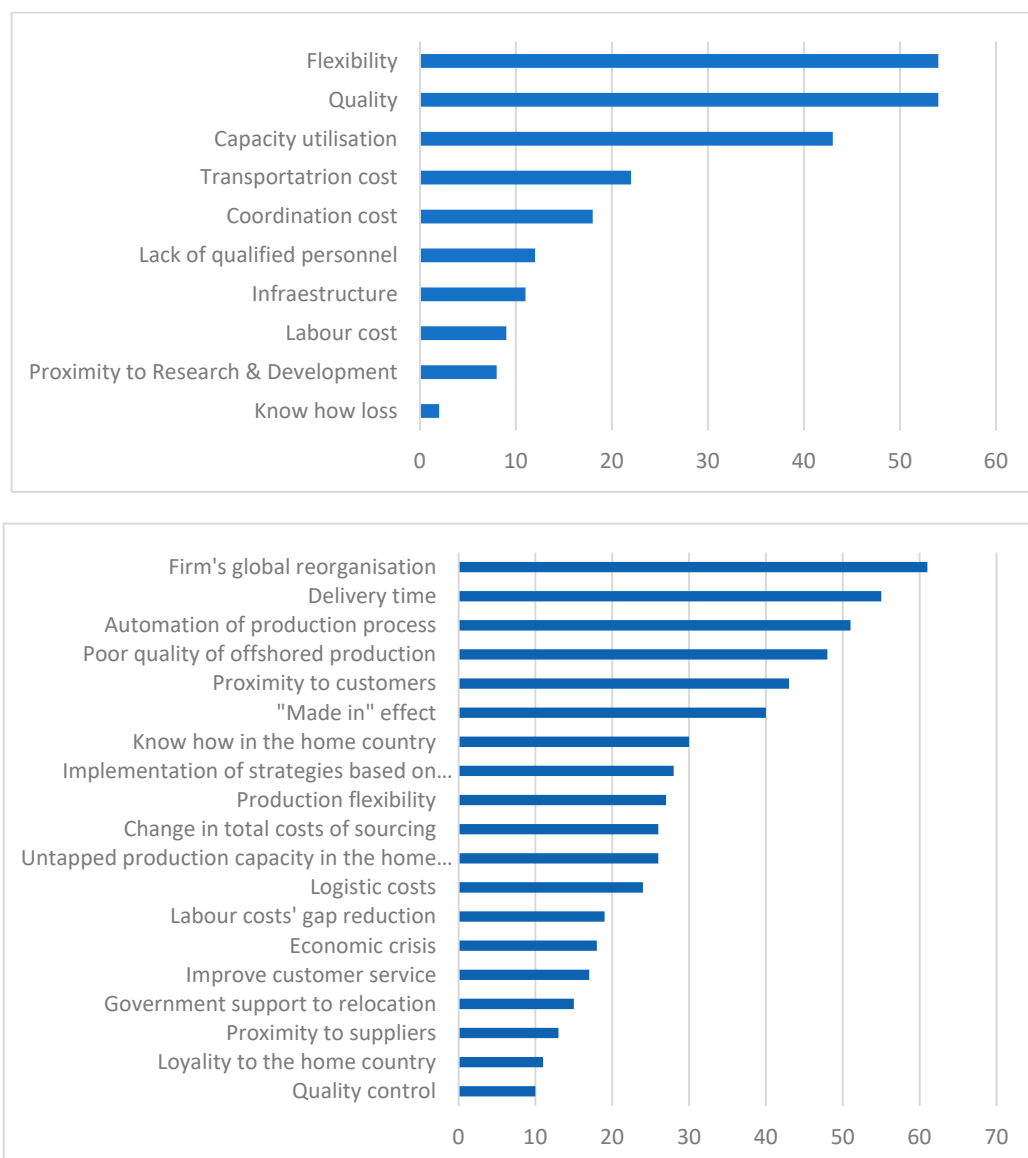


Figure 4. Reasons for backshoring in the Dachs, Kinkel & Jäger and Eurofound investigations. Source: (adapted from [22,23]).

The logistics costs of maintaining global supply chains are not affordable from a sustainable perspective of world transport. Economic crises, so-called bottlenecks, taking constant climate-related risks, customs conflicts, cyberterrorism, geopolitical tensions, etc., generate extra costs that are difficult to assume by many companies around the world, which strategically rethink their production structures.

Two examples can help to understand these systemic risks of global supply chains. The first example. The so-called semiconductor crisis was a serious problem in the global automotive industry that particularly affected Europe. Some estimates put global losses at USD 110 billion [27], with the AutoForecast company estimating that 2,188,800 vehicles would no longer be produced worldwide by 2022, of which 1,009,900 correspond to European factories. The lack of semiconductors on the world market was the result of the restrictions and changes imposed by the pandemic, affecting the main Asian producers: Taiwan, Korea, China, and Japan [28].



Figure 5. Conceptualized image of the European Parliament report “Post COVID-19 value chains: options for the relocation of production in Europe in a globalized economy”. Source: (adapted from [26]).

Second example. On 23 March 2021, an event occurred that had worldwide repercussions and offered a shocking image of global supply chains. The Ever Given supercarrier, with a capacity to transport 20,000 containers, 400 m long and 60 m high, ran aground in the Suez Canal, causing international maritime traffic to be suspended along that route for six days. The cargo ship belonged to the Taiwan-based Evergreen Shipping Company, although the ship was flagged to Panama and owned by Japan’s Shoei Kisen Company. More than four hundred cargo ships with millions of tons of all kinds of products had to wait on both sides of the Canal for days to reach their destinations. On the first day, Brent oil rose 6% due to this international traffic problem. Insurance and merchandise losses are estimated in billions of euros.

In an opinion piece in the New York Times published on 31 March 2021 [29], Marc Levinson, an economist specializing in globalization, world trade, and containers, author of the book “The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger”, defined the Ever Given accident as an end-of-cycle metaphor. Containers had enabled the advancement of globalization but had already passed the peak of their life cycle. According to this author, the two fundamental factors of the globalization of the economy had been the salary gaps between poor countries and rich countries, which from the financial point of view determined the relocation of production (offshoring), and the economies of scale of the producing countries, for factories that served the whole world could specialize in producing a small range of products at enormous volume, which allowed the cost of each unit to be reduced to marginal values. However, since the 1980s, when world trade began to fill the oceans with containers, the risks of disruptions in supply chains had multiplied, making this system much more fragile than multinationals had imagined. The jam in the Suez Canal could be seen as a metaphor for the end of this stage of globalization, marked by the worldwide transport of manufactured goods.

4. Methodology of the Research

The research that was carried out to study the impact of reshoring in Europe consisted of a detailed analysis of the actions related to the relocation of the production of the top ten European industries in six different areas. The idea behind this method is that the leading enterprises, in their growth stage with very high profits, carry out processes that are later imitated by the rest of the firms [30], so that if all the companies with the highest production and profits, or a good number of them, make a certain change or innovation in its structure, this change will be transferred to the rest of the firms in the sector.

To establish the list of the top ten European industrial companies by value of their industrial production sales in each sector, lists of organizations and specialized media were consulted, such as the World Bank, Herald Tribune, OECD, or EU, and statistics repositories such as Statista, or value today.

Once the ten main firms in each sector had been established, the degree of involvement of each of them in reshoring was analyzed through the information published on the internet using a matrix with three possibilities: that the company produced news related to reshoring (A: value 1 point), that contracts for the transfer or creation of a new manufacturing plant were advertised (B: value 1.5 points) and that the reshoring process had already been carried out and the new plant was already in production (C: value 2 points). In this way, a company could obtain a maximum score of 4.5 points and the industrial sector as a whole 45 points.

To assess the results of each matrix, some proportional quantitative ranges are established: >10, 10–20, 20–30, and >30. So, in the industrial branch where the matrix generates a value greater than 10 points in the total, we can verify that the practice of reshoring has a significant impact and if it is below that value, reshoring is not relevant. If the value is between 20 and 30 points, reshoring is verified as a strategy used by an important part of the sector and if the value exceeds 30 points, the relocation of production in that industrial area can be characterized as a practice assumed by the sector and that will mark the future in the coming years, with the changes that this fact may cause in the land systems of both countries.

The manufacturing sectors chosen for the study are those that have relocated a large part of their production to other countries since the end of the 20th century: chemical, electronic, fashion and footwear, household appliances, pharmaceutical, and agri-food industries.

5. Results

The results of the investigation corroborate the initial hypothesis. The relocation of manufacturing factories occurs in all industrial areas, although the phenomenon is not yet widespread. The greater frequency of disruptions in global supply chains, the increase in labor, transport, and insurance costs, political and social pressure in developed countries, and incentives to relocate, both material and immaterial, are factors of the new strategic decisions of the companies, which do not transfer all their production to the countries of origin of the multinationals, but do value the possibility of partial reshoring or nearshoring in the opening of new production plants. Cases of indirect reshoring are more abundant, where manufacturers decide to increase their in-house capacity, instead of reshoring an entire section of their production.

In this analysis we can appreciate differences between the industrial sub-sectors.

5.1. Chemical Companies

Of the six branches studied, chemical companies are the least involved in reshoring, and even so, of the top ten European companies, three of them have carried out relocation processes (Table 1). BASF opened a new plant in Ludwigshafen (Germany), although its main policy continues to be offshoring due to high energy costs in Europe. Something similar happened with the also German Symrise, which in 2021 bought and put into production a fragrance factory in Granada (Spain). Akzo Nobel built a new plant in Skoghall (Sweden), and Linde announced in January 2022 the signing of a contract to build a new Green hydrogen plant at Yara International's fertilizer factory in Porsgrunn, Norway.

In chemical companies, reshoring is not yet a mainstream practice, but there are notable cases of reshoring by leading companies in the sector. In the United States, reshoring in this sector is more widespread, especially since the COVID-19 pandemic [31].

Table 1. Reshoring involvement index of the leading European chemical companies.

Companies	A	B	C
Linde, Ireland	1	1.5	0
Air Liquide, France	0	0	0
BASF, Germany	1	1.5	2
LyondellBasell Industries, The Netherlands	0	0	0
Givaudan, Switzerland	0	0	0
Ems-Chemie, Switzerland	0	0	0
Symrise, Germany	1	1.5	2
Akzo Nobel, The Netherlands	1	1.5	2
Yara International, Norway	0	0	0
Croda, UK	0	0	0
<i>TOTAL</i>			16

5.2. *Electronical Companies*

The top ten European electronic companies by turnover in 2021 show a higher index than chemical companies, since up to six of them have been related to reshoring processes (Table 2). ABB, the Swiss company, relocated part of its production from the United States to Italy, as documented in the lists of the European Reshoring Monitor, which recorded the main location changes in European manufacturing companies between January 2015 and December 2018. The company Dutch company Philips relocated part of its production to the United Kingdom, while TE Connectivity inaugurated in 2016 the expansion of its production plant in Dinkelsbuehl, Germany. Infineon began producing semiconductors at its new plant in Villach, Austria, in 2021 and STMicroelectronics signed an agreement with the Italian government to install a new semiconductor production plant in Catania. For its part, the Dutch company DSM announced in local media its agreement with another company from this same country, VDL, to produce medical supplies during the pandemic. The semiconductor crisis has provoked a political pressure-driven response from major European electronics companies.

Table 2. Reshoring involvement index of the leading European electronical companies.

Companies	A	B	C
Medtronic, Ireland	0	0	0
ASML Holding, The Netherlands	0	0	0
ABB, Switzerland	1	1.5	2
Philips, The Netherlands	1	1.5	2
NXP, The Netherlands	0	0	0
TE Connectivity, Switzerland	1	1.5	2
Infineon, Germany	1	1.5	2
STMicroelectronics, Switzerland	1	1.5	0
DSM, The Netherlands	1	0	0
Nokia, Finland	0	0	0
<i>TOTAL</i>			21.5

5.3. *Apparel Companies*

Among the companies with the highest value in this sector, those related to luxury stand out, which tend to have compact and highly integrated supply chains to protect

the values of the brands. These companies have not been characterized by offshoring or outsourcing and most of their products are manufactured in France or Italy. Louis Vuitton, Gucci, Chanel, Hermès, Cartier, Dior, and Rolex are part of these luxury companies, which base much of their global success on the value of their “made in” [32]. Despite the fact that most of its production is produced in European countries, Louis Vuitton and Chanel have carried out expansions of their production plants in France, which would be indirect reshoring, while Dior announced their agreement in September 2022 to open a new production plant for shoes and sneakers in Fossò (Italy).

The cases of Inditex, H&M, and Adidas are different from those of the luxury brands, as these companies did have part of their production located far from Europe. In the case of Adidas, since 2017 the German brand has followed a policy of robotizing its footwear production factories in Germany, relocating the manufacture of sports shoes that it previously made in Asia, while Inditex and H&M follow a nearshoring strategy, seeking regional supply chains that allow for greater reliability of supplies (Table 3).

Table 3. Reshoring involvement index of the leading European apparel companies.

Companies	A	B	C
Louis Vuitton, France	1	1.5	2
Gucci, Italy	0	0	0
Chanel, France	1	1.5	2
Adidas, Germany	1	1.5	2
Hermès, France	0	0	0
Inditex, Spain	1	1.5	2
H&M, Sweden	1	1.5	2
Cartier, France	0	0	0
Dior, France	1	1.5	0
Rolex, Switzerland	0	0	0
<i>TOTAL</i>			25

5.4. Appliance Manufacturers

Domestic appliance manufacturing companies were among the first to relocate their production to other continents because of the lower wage costs they could obtain in countries where the final quality of the product was not affected. Nevertheless, in recent years domestic appliances is one of the sectors with the highest rate of relocation, both due to the increase in wage costs in third countries and to the robotization of manufacturing processes in the parent countries of multinationals (Table 4). Thus, of the top ten European companies, five of them have carried out complete reshoring processes from different countries to Europe. For example, BSH and Electrolux closed different production and sales management units in Australia and replicated those units in Poland. Miele expanded its production by acquiring a factory in Balegante (Italy) that specialized in the disinfection of all types of equipment. Liebherr built a new production plant in Biberach ander Riss (Germany) and DeLonghi, instead of relocating to Asia, always prioritized building its best-known appliances in Romania or Italy.

Table 4. Reshoring involvement index of the leading European appliance manufacturers.

Companies	A	B	C
BSH, Germany	1	1.5	2
Electrolux, Sweden	1	1.5	2
Groupe SEB, Italy	0	0	0
Indesit, Germany	0	0	0
Miele, Germany	1	1.5	2
Liebherr, Germany	1	1.5	2
DeLonghi, Italy	1	1.5	2
Smeg, Italy	0	0	0
CNA Group, Spain	0	0	0
Taurus Group, Spain	0	0	0
<i>TOTAL</i>			22.5

5.5. Pharma Companies

Pharmaceutical companies offshored the production of Active Pharmaceutical Ingredients (APIs), especially to China, in the 1990s, and with the health crisis caused by the pandemic, they soon became the target of criticism, as there were times when countries with large multinational pharmaceutical companies, such as France or the United Kingdom, were unable to ensure the supply of basic products such as paracetamol. This fact was transferred to the public debate, with pharmaceutical associations arguing that rather than reshoring, we should speak of “right shoring”, as a relocation of the global industry was unthinkable. In this context, right shoring is about having assets and processes in the right place to provide the best combination of cost and efficiency. Indeed, some large companies in the industry have engaged in indirect reshoring actions, increasing investment in new R&D and production units at their facilities in Europe. For example, both Roche and Glaxo-SmithKline have boosted their facilities in the UK, as have Ipsen in France and Allergan in Ireland, while Denmark’s Lundbeck has followed the same strategy at its facilities in Padova (Italy). France’s Sanofi and Britain’s Astra Zeneca have announced plans for new API production plants in Europe (Table 5).

Table 5. Reshoring involvement index of the leading European pharma companies.

Companies	A	B	C
Roche, Switzerland	1	1.5	2
Sanofi, France	1	0	0
GlaxoSmithKline, UK	1	1.5	2
AstraZeneca, UK	1	0	0
Novo Nordisk, Denmark	0	0	0
Merck Group, Germany	0	0	0
Allergan, Ireland	1	1.5	2
UCB, Belgium	0	0	0
Ipsen, France	1	1.5	2
Lundbeck, Denmark	1	1.5	2
<i>TOTAL</i>			24.5

5.6. Food and Beverage Companies

Finally, reshoring practices have also been relevant in the leading European food and beverage companies (Table 6). Among the top ten companies in this sector, those dedicated to dairy products stand out, which follow regional supply chain models, so that reshoring practices do not involve the relocation of production plants from very distant countries. The exception to this is Danone, which years ago expanded its industrial plants in Africa to reduce production costs but ended up closing them and reshoring them due to the poor quality of the products produced. Nestlé is an example of indirect reshoring, increasing investment in European manufacturing plants, while the Dutch company FrieslandCampina moved its production from Germany to Maasdam (Holland) and Unilever from Poland to Liverpool (UK).

Table 6. Reshoring involvement index of the leading European food and beverage companies.

Companies	A	B	C
Nestlé, Switzerland	1	1.5	2
AB InBev, Germany	0	0	0
Heineken, The Netherlands	0	0	0
Danone, France	1	1.5	2
Lactalis, France	1	0	0
Unilever, UK	1	1.5	2
Diageo, UK	0	0	0
Ferrero, Italy	0	0	0
FrieslandCampina, The Netherlands	1	1.5	2
Arla Foods, Denmark	0	0	0
<i>TOTAL</i>			18

6. Discussion and Conclusions

As various studies have stated [33–36], reshoring is a practice of industrial relocation that began to occur in developed countries after the Great Recession that began in 2008. Rising labor, energy, transport, and insurance costs, among other internal factors, are a brake on relocation to countries far from the main markets, just as popular pressure, the “made in” effect, political discourse and local aid for reindustrialization are vectors that reinforce reshoring.

This research has shown how the COVID-19 pandemic has reinforced a trend of industrial relocation that had already registered the first cases at the end of the first decade of the 21st century. Therefore, it cannot be said that the reshoring cases in Europe are a consequence of the pandemic, as business decisions of this magnitude are made on the basis of multiple factors.

What is certain is that the economic and health crisis situations have modified the perception of offshoring in companies, so that when the managers of these multinationals are questioned about the possibility of reshoring and do not have this strategy on their agenda, introduce new terms as euphemisms: such as “rightshoring”, “friendshoring” or “omnishoring” to continue betting on production in third countries and global supply chains.

The research has shown that reshoring is not yet a majority practice in the leading European companies, but its impact is significant in all the branches analyzed. Many of the companies have carried out so-called indirect reshoring, increasing investment in their own facilities in European countries or in-house facilities instead of opening new manufacturing plants in third countries. Even so, a significant percentage of the companies have built new production plants in European countries where they have relocated production, following the closure and abandonment of their own factories in other parts of the world or the cancellation of production contracts with local companies.

The industry has been, is, and will continue to be the most competitive and innovative economic area, capable of dragging other sectors along in its development, and a true engine of growth for the world's main economies [12]. The tertiarization of the economy is a process that ends up determining that a majority percentage of the active population converges on this large sector, although there are notable differences in the composition of these groups of activities by country. There are examples where financial intermediation, advanced business services, and R&D&I technology centers stand out, countries where the public sector is predominant, examples where the tertiary sector is based on personal services, small businesses and repair shops, and others where tourism and the hotel and catering industry are fundamental.

Europe has been the cradle of industry and for two centuries it has generated continuous advances, great discoveries, and industrial and technological revolutions. Many of these concrete realities are today memories of the past, European industrial history converted into heritage, into a tourist product.

Since the end of the 20th century and the beginning of the 21st century, Europe has lost that privileged position over world industry, or we could say that it has voluntarily ceded it to third countries, as a great promoter of globalization. Offshoring, the practice of relocating production to countries with cheaper labor, and outsourcing, the subcontracting of industrial processes and tertiary activities to foreign companies to reduce costs, deindustrialized Europe and, directly or indirectly, promoted industrialization from less developed countries in Asia, Latin America, and more recently, Africa.

As a result of global instability since the beginning of the 21st century, with a pandemic health crisis, terrorist attacks, economic crises, geopolitical tensions, cyber-attacks, and rising wage and transportation costs, an increasing number of companies have decided to repatriate industrial processes to their countries of origin, relying for this on technological advances that allow staff to be reduced and on incentive measures from public administrations that consider reindustrialization as a medium-term strategic objective.

The pandemic caused by COVID-19 has highlighted the fragility of global supply chains, generating an intense debate that has criticized the perverse effects of globalization in developed countries as never before. The widespread idea is that we are facing the end of the cycle, with consequences that are as yet unforeseeable. The trend being promoted is to create technology clusters with financial capacity in these countries, attracting external talent and fostering innovation, in order to increase local industrial productive capacity, without abandoning global markets. The specific objective must be ambitious, for example, that industrial production reaches, again in Europe, 30% of GDP.

The research carried out presents limitations as a global and definitive analysis of reindustrialization in Europe. This article has studied the reshoring practices of just 60 companies, when according to the European Manufacturing Survey, thousands of companies have practiced offshoring since the beginning of the 21st century. It is necessary to deepen the study by considering not only the large companies that lead the industrial production rankings, but also the smaller companies that characterize the European production model. In the same way, all industrial branches should be covered and not only the six used in this publication. The objective of the article was to verify if reshoring was an industrial production strategy for major European companies. The results of the research have verified that the impact is significant, even if it is not yet fully widespread among the leading companies in the six sectors analyzed. Future research will deepen knowledge of the reindustrialization process in Europe and the territorial impact of this economic dynamic, which can be a crucial element of a new global regionalization.

Funding: This research was funded by the Ministry of Science, Innovation and Universities of Spain, reference: RTI2018-095014-B-100 "Vulnerabilidad, resiliencia y estrategia de reutilización del patrimonio en espacios desindustrializados" (Vulnerability, resilience and reuse strategy for heritage in de-industrial spaces). Lead Researcher: Paz Benito del Pozo.

Informed Consent Statement: Not applicable.

Data Availability Statement: Lists of companies that have reshored can be obtained at <https://reshoring.eurofound.europa.eu>, <https://www.reshoring.uk/>, <https://www.reshorennow.org/> (accessed on 22 November 2022).

Conflicts of Interest: The author declares no conflict of interest.

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