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An Analysis about reverse offshoring

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An Analysis about reverse offshoring

Abstract

Economies that traditionally benefited from offshoring are losing some of their strategical advantages, with a consequent increase in backshoring (i.e., reverse offshoring) by developed economies. This paper describes this phenomenon and tries to shed light, from an Italian perspective, on the current challenges, trends and debates of backshoring, and on its main determinants. A new phenomenon known as *nearshoring* is also analysed—this consists of relocating some previously offshored manufacturing activities so that they are now close to previous core locations, but not so close as to suffer from disagglomeration effects.

Key words: offshoring, backshoring, and nearshoring
JEL Classification: R12, R30

1. Motivation

The mechanisms driving the competitiveness of firms have many determinants, among them where they locate their facilities. A firm's efforts to increase its productivity is constrained by the characteristics of the geographical area in which it located; moving a facility to a more appropriate area is a major strategic decision. Such movements are known as relocations or, when they imply crossing a national border, offshoring and re-shoring.

As these strategies have been traditionally followed by firms from developed countries moving to less developed ones (with lower production costs), there is abundant empirical evidence describing and analysing the processes undertaken by firms from very different countries and industries (Bramucci, 2016; Martone, 2016; Gray *et al*., 2013; Rilla and Squicciarini, 2011; Lewin and Peeters, 2006; Bardhan and Kroll, 2003). The early 2000s gave rise to the innovation known as backshoring, whereby some firms decided to reverse existing relocations and began, totally or partially, to move their plants and some management services back to their home country (Barbieri *et al*., 2018; Stanczyk *et al*., 2017; Vanchan *et al*., 2018; Gray *et al*., 2013).

These reverse movements have been driven, among others, by *i)* increasing production costs in countries that traditionally attracted offshored firms, *ii)* improvements in competitiveness in the home country, and *iii)* the greater operational flexibility arising from a reduced distance between a plant and its markets. Even more recently, a new strategy known as nearshoring has appeared in some developed countries. This is a type of backshoring, but instead of coming back to countries / regions where a firm has its headquarters or where the plant was previously located, the relocation is to a

nearby area offering the advantages both of offshoring (lower production costs) and of backshoring (competitiveness in some high-quality segments and quick delivery), but without suffering from the main limitations of either (typically, large distances between plants / business services and their main markets, and the scarcity of a specialised labour force).

Unfortunately, the terminology in this area has not yet been standardized. Although "backshoring" is the term most commonly used to describe the relocation to the national territory of production activities previously outsourced abroad, [1] terms such as "return relocation" (Jungnickel, 1990), "in-shoring" (Dholakia *et al*., 2012; Skipper, 2006), "reshoring" (Gray *et al*., 2013) and back-reshoring (Fratocchi *et al*., 2014), also exist. Despite the extensive literature on offshoring, because *backshoring* and, even more so, *nearshoring* are quite recent phenomena, empirical evidence about them is still scarce, so contributions to the literature would be very welcome. Obviously, the policy implications are of great importance, as a decision to move manufacturing activities back, may have a strong impact on both employment and economic activity. It is important to note that backshoring strategies are sometimes associated with public policies, for example in the European Union case, the Horizon 2020 strategy targets manufacturing activities to account for 25% of the European GDP by 2020.

Unfortunately, measuring either backshoring or nearshoring is difficult in view of *i)* the novelty of these phenomena and *ii)* a lack of reliable datasets collecting information regarding the migration of firms. However, as these are growing phenomena (a trend that will

[1] As noted by Holz (2009, p. 156) who says that it implies "the geographic relocation of a functional, value creating operation from a location abroad back to the domestic country of the company."

continue in forthcoming years), it is reasonable to expect a greater availability of such information in the near future. In the meantime, researchers should use the best available indirect sources, case studies, proxies and partial analyses focusing on specific industries or geographical areas.

This paper aims to fill some gaps regarding backshoring processes. The structure of the paper is the following. The next section reviews several key facets of the offshoring of economic activities—these include the geographical areas involved, the temporal and industrial dimensions, the main trends currently observed and those expected in the future. The third section discusses the primary similarities and differences between backshoring and nearshoring, and details recent nearshoring trends in certain developed countries. The fourth section analyses the public policies encouraging backshoring undertaken in these countries. The fifth section concludes and indicates potential research directions.

2. Offshoring of economic activities

Understanding backshoring implies having previously analysed offshoring processes, as the former is partially a consequence of the latter. However, backshoring and offshoring are not antithetical, but coexist, one or the other being chosen according to changing economic conditions and the firms' strategies.

Broadly speaking, the boom years of offshoring in Western Europe were the 1980s, when relocation became the main way to remain competitive in a global market where emergent and less developed countries from Asia, Central and Eastern Europe and Latin America were increasing their market shares. Later, in the 1990s, Central and

Eastern Europe followed this process during their EU transition periods. Initially, offshoring was mainly driven by lower production and administration costs at the destination, but later new sources of competitiveness, such as a skilled workforce, proximity to new markets and improved production facilities (Joubioux and Vanpoucke, 2016; Lewin and Peeters, 2006), appeared in the destination countries.

Although offshoring may seem to be simply a migration of jobs from developed to developing countries, it is a widespread and complex phenomenon (Bardhan and Kroll, 2003), and one closely linked to globalization and business internationalisation in which firms move their plants aiming to capture the specific advantages of each venue, thus minimizing production costs and maximizing revenues (Martone, 2016). Offshoring not only implies moving jobs and economic activity to other countries, but also generates major structural (e.g., value chain segmentation) and strategic changes (e.g., the outsourcing of internal activities) at the firm level. Obviously, the effect of offshoring differs across labour market from the small impacts on managers and specialised workers (in the countries of origin) to the big impacts on low-skilled workers who are easily replaced by their low-wage counterparts in less developed countries (Bramucci, 2016).

Offshoring implies transferring production of goods and services to other countries, while keeping ownership and control at home (Arlbørn and Mikkelsen, 2014). The destinations are mainly developing countries, which are expected to reduce production costs, especially in terms of lower wages and less strict environmental requirements. In addition to these advantages, offshoring has been fuelled by information and communication technologies, improvements in transport infrastructures, worldwide tariffs cuts, and higher skill levels in developing countries. Nevertheless, the

additional costs involved in relocations were rarely fully considered and, consequently, expectations about positive effects of offshoring were probably overestimated. This considerably boosted offshoring, as Michael Porter summarises (The Economist, 2013) when saying that ”A lot of CEOs offshored too quickly and too much”.

Offshoring, however, is only one of the potential internationalisation strategies for a firm; there are other alternatives such as FDI, creating joint ventures, outsourcing, and subcontracting. Even if offshoring is the selected option, there is still an important decision as to whether the appropriate modality is Captive Offshoring or Outsourcing Offshoring.

Captive Offshoring implies moving a plant overseas or acquiring a firm there, employing one of five different strategies (Martone, 2016), namely *i)* Pure Captive (opening a foreign subsidiary), *ii)* Hybrid Captive (a spatial segmentation in which core activities – production- are kept in the home country and the other activities are outsourced), *iii)* Shared Captive (the foreign plant also produces for external firms), *iv)* Divested Captive (management of foreign plant is outsourced to an external firm) or *v)* Terminated Captive (non-core activities are transferred to external firms). Outsourcing Offshoring (also known as Offshore Outsourcing) implies that any of the firm’s activities that move to another country are transferred to a different firm (Gray *et al*., 2013).

Regarding the geographical extent of this phenomenon, an example of massive offshoring can be found in the early 80s among U.S. firms who decided to move some production facilities (i.e., “maquilas”) south of the Mexico–United States border. Similarly, some EU countries such as the UK, France, Germany, and Denmark relocated manufacturing activities to Eastern (Balkans, Romania) or Southern

European countries. Subsequently, Italian SMEs followed the same path. Although internationalization of Italian firms is lower than for other European countries,[2] the Italian case is of clear interest as the firm structure is composed mainly of SMEs, spatially organised within industrial districts with strong inter-firm linkages in terms of R&D cooperation, use of shared facilities, and transactions involving intermediate outputs that, theoretically, make the implementation of offshoring strategies more difficult. Offshoring strategies favoured the dissolution of this model and weakened the local production system (Mariotti and Multinelli, 2010). Concretely, Italian firms have mainly offshored to East and Central Europe, attracted by lower wages, geographical proximity and membership of the European Union. In this way there are minimal transportation costs and, in most cases, no customs duties. There is also cultural proximity, and workers have a production background like the Italian districts, which reduces workforce co-ordination costs.

There have been important changes in the activities considered to be re-locatable (Rilla and Squicciarini, 2011). Initially, only production was offshored but then, thanks to the development of information and communication technologies, some services such as product development, engineering, and R&D were offshored. Concretely, manufacturing offshoring implies transferring only manufacturing non-core activities.[3] The first phase of offshoring aims to reduce production costs, access new markets through direct presence in the territory, and leverage favourable government policies (Lewin and Peeters, 2006). Obviously, not all manufacturing industries are equally concerned, those most affected by this economic strategy are

[2] Italian offshoring corresponds mainly to firms located in the Adriatic area and to those belonging to textile, clothing and footwear industries.
[3] Probably the first time this strategy was used was in 1911, when Ford Motor relocated the assembly of the Ford Model T from the U.S. to Trafford Park, England (Stringfellow et al., 2008).

clothing, leather goods and fabrics (where the most labour-intensive stages of the production process are transferred to low-cost labour countries); electronics and electrical appliances (where the upstream phases are relocated to technologically advanced countries, the component assembly phases going to low-cost countries). Service offshoring implies moving service core activities (Metters and Verma, 2008) that can be relocated thanks to new communication technologies which facilitate coordination across longer distances (Contractor *et al*., 2010). Finally, offshoring of IT and R&D services has followed several stages, as initially the simpler functions (e.g., call centres) were moved, followed later by the more complex ones (e.g., engineering, R&D and design).

Although cost reduction was the first offshoring driver, there are many other important determinants (Lewin and Peeters, 2006) which include *i)* comparative macroeconomic advantages in destination countries (Kinkel and Maloca, 2009), *ii)* worse working conditions favouring firms' interests, *iii)* availability of skilled cheap labour in some emerging countries as India (Torrisi, 2002), *iv)* availability of raw materials, *v)* expanded market potential, *vi)* diminishing trade barriers and tariffs, *vii)* tax breaks and FDI oriented policies, and *viii)* reduced shipping costs. It is important to note that, as the previous advantages do not apply equally to all destination countries, relocated firms should carefully match their new site requirements to the destination area potential.

Finally, some characteristics of firms, such as product standardization, firm size, and being multinational, help to explain their offshoring patterns. Concretely, *i)* product standardization matters because standardized products and processes with encoded knowledge (Ricciardi *et al*., 2015), are easier to offshore than are products with specific features (Kinkel and Maloca, 2009); *ii)* firm size

is relevant because offshoring is more common (and easier to implement) for large and medium-sized firms (Kinkel and Maloca, 2009), and also offshoring duration is longer for them; and finally, *iii)* multinational firms have higher levels of offshoring because they can easily absorb the sunk costs involved.

3. Backshoring vs. nearshoring

Although offshoring has helped many firms boost their productivity, recent findings indicate that expectations about the effects were too optimistic (Gylling *et al*., 2015); mainly because relocated firms considered only the benefits of outsourcing, without taking all the costs into account (Needham, 2014; Leibl *et al*., 2011), and ignored the increases of labour costs per unit of product (CLUP) in destination countries. Similarly, offshored firms in less developed countries have faced additional restrictions, such as lack of flexibility in supplying markets in their home countries, or lower quality standards for some products requiring highly skilled labour. Furthermore, although offshoring usually increases domestic well-being, this requires well developed intra-firm communication, so that the knowledge generated and obtained abroad can be transferred to the country of origin (Gersbach and Schmutzlery, 2011).

Due to these shortcomings, moving back facilities and services can be explained as short-term corrections to the offshoring decision (Gray *et al*. 2017; Kinkel, 2014) which attempt to increase the geographical proximity to the firm's area of influence. These back movements can

be further differentiated into backshoring and nearshoring (Bals *et al*., 2016).[4]

The first of these, backshoring, consists of back migration of plants that had been previously moved abroad. Kinkel and Maloca (2009, p. 155–156) define backshoring as a "re-concentration of parts of production from own foreign locations as well as from foreign suppliers to the domestic production site of the company" and they also conceptualize that "backshoring activities are predominately short-term corrections of prior location misjudgements, rather than long-term adjustments to changing conditions at the foreign locations". According to Fratocchi *et al*. (2014, p. 56), back-reshoring is defined as "a voluntary corporate strategy regarding the home country's partial or total relocation of (in-sourced or out-sourced) production to serve the local, regional or global demands".

Although backshoring is a recent phenomenon, efforts have been made to identify its main characteristics and to identify specific categories (see Table 1 for a summary). Among them we may highlight those of Gray *et al*. (2013) and of Kinkel (2014). The former authors divide the phenomenon into four types: *i)* outsourced reshoring (activities entrusted to foreign suppliers, then performed by national suppliers), *ii)* in-house reshoring (activities previously carried out in foreign affiliates, then by nationally owned structures), *iii)* reshoring for outsourcing (production carried out in foreign property plants, now entrusted to national suppliers) and *iv)* reshoring for insourcing (manufacturing activities carried out first by foreign

[4] Backshoring will be the term used throughout this paper as it has the greatest consensus among researchers, but there are many different terms that proxy the same phenomenon, such as "return relocation" (Jungnickel, 1990), "inshoring" (Dholakia *et al*., 2012; Liao, 2012) or "reshoring" (Gray *et al*., 2013), although the last one is broader.

suppliers, then by business units). The latter authors split backshoring into two categories: outsource backshoring (production entrusted to third parties) and captive backshoring (when the home firm owns previously relocated foreign establishments).

[INSERT TABLE 1 AROUND HERE]

In general terms, the determinants of backshoring may be classified as restrictions related to *i)* labour markets in destination countries (increases in labour costs, low productivity and skilled staff shortages, high staff turnover rates); *ii)* the distance between home and destination countries (transport costs and long shipping times, physical distance between production sites and customers, lack of flexibility, negative impacts on innovation, supplier-customer mismatches); *iii)* differences of institutional structures between home and destination countries (failures in intellectual property protection, low quality standards at destination, environmental protection issues and workforce conditions, country and exchange risks, cultural differences, regulation asymmetries); *iv)* pull effects from home countries (the so-called "Made in" effect, government incentives in home countries).

Firstly, labour markets in destination countries have advantages in terms of lower wages but, concomitantly, have limitations that can seriously damage a relocated firm's competitiveness. Among these limitations are increases in labour costs that erode wage differentials between home and destination countries (Vanchan *et al*., 2018; Tate *et al*., 2014; Gray *et al*., 2013; Kinkel and Maloca 2009). This equalization is explained in terms of labour shortages in destination countries and economic stagnation in home countries due to the recent economic crisis. In addition, some Asian governments have imposed significant wage increases to reduce trade union unrest.

Overall, wage inflation in destination countries has greatly eroded their labour cost competitiveness. Also, workers in destination countries tend to have lower skill levels than their home country counterparts (Tate *et al*., 2014), which implies both lower productivity levels (Lampón *et al*., 2015), and increased costs in recruiting and training skilled staff (Tate *et al*., 2014; Kinkel and Maloca 2009), partially because of a high turnover of skilled staff caused by the scarcity of skilled managers.

Secondly, the distance between home and destination countries may be an important shortcoming in view of the long transport durations (Gray *et al*., 2013) that increase transportation costs (Martínez-Mora and Merino, 2014), to the point of even counterbalancing the low wages in the country of relocation. Here, infrastructure quality, fuel prices and transport-related technology, matter but the major shortcoming may be a lack of flexibility in a supply chain that is designed to be worldwide and which is potentially disrupted by long transport times and unexpected delivery shortages, rigidity in purchased orders, container size, delayed order penalties, or minimum order quantities (Fratocchi *et al*., 2014; Kinkel and Maloca, 2009). Similarly, physical distance from customers matters (Vanchan *et al*., 2018; Tate *et al*. 2014). In addition, offshoring strategies in which R&D remains in the home locations, while production is offshored, may have a negative impact on innovation (Tate, 2014; The Economist, 2013) because the geographical linkages between knowledge generation and application of this knowledge are weakened.

Thirdly, differences in institutional structures between home and destination countries may have several negative effects, for instance, the potential failures of intellectual property protection (Tate, 2014; Tate *et al*., 2013; Gray *et al*., 2013; Dholakia *et al*., 2012) or lower

quality standards (Stentoft *et al*., 2016; Ancarani *et al*. 2015; Fratocchi *et al*., 2014; APMG, 2013; Kinkel and Maloca, 2009) given that institutional, cultural, and physical distance, make quality control difficult and costly. Similarly, worse environmental and workforce conditions in destination countries may not be acceptable for westernised societies in the home countries and may damage the reputation of the offshored firms (Tate, 2014; Gray *et al*., 2013; Tate *et al*., 2013). Country and exchange risks in destination countries may negatively affect the feasibility of offshoring, especially in countries with weak institutional and political environments (Albertoni *et al*., 2017; Stanczyk *et al*., 2017), as well as differences in certification processes. There are also asymmetries such as cultural differences (e.g., differences in vacation periods and supplier-customer communicative barriers) that may disrupt production schemes and deliveries to home countries (Tate, 2014; Gray *et al*., 2013).

Fourthly, pull effects from home countries matter, because going offshore implies losing the so-called "Made in" effect (Vanchan *et al*., 2018; Baldassarre *et al*., 2014), which implies reduction in both prestige and the possibility of charging premium prices. This negative effect may be quite important for countries with a well-established reputation. Nevertheless, the most important pull effects seem to be those consisting of government incentives from the home country—many Western governments having reoriented their economic strategies towards high-tech manufacture and related services (Vanchan *et al*., 2018; Gray *et al*., 2013).

The second one, nearshoring, appears when some firms that strategically decided to backshore, realised that bringing back production facilities to the home country was not optimal in view of huge production costs gaps between the two countries. Alternatively,

keeping production facilities in the offshored countries was in some circumstances not feasible, given existing drawbacks linked to competitive conditions in these countries. Given, on one side, the disadvantages of wages and production costs, and on the other side, the lack of flexibility and competitiveness, there was a need to look for an intermediate solution—that of nearshoring. The source of this term is unclear, but it most likely was coined in 1997 by Softtek, a Mexican IT solutions firm (Purkayastha and Samad, 2014). Ultimately, nearshoring is similar, but not identical, to backshoring. Concretely, nearshoring consists of relocation of previous overseas activities to countries close to the home country to achieve greater control, savings on co-ordination costs, and time-to-market reduction.[5] Nearshoring focuses on reducing geographical, cultural, and linguistic distances and may be regarded as an intermediate strategy between moving back entire production facilities and keeping them in destination countries.

The expected advantages of nearshoring include lower labour and transport costs, potential tax breaks, improved coordination, quicker reaction to market change, faster response to volatile consumers' preferences (especially for luxury products), and geographical and cultural proximity to final customers. Overall, it may overcome the typical shortcomings linked to offshoring but, of course, not all offshored activities may be considered for nearshoring, or even for backshoring.

[5] When we talk about nearshoring, it is not only about physically moving production facilities, but also about changing suppliers from those in typical destination countries to others geographically closer to the firm. An example of this strategy is the recent decision taken by IKEA in Italy to increase the share of purchases of furniture and toys products from Italian suppliers to the detriment of cheaper Chinese manufacturers (Ancarani *et al*., 2012).

In view of geographical proximity when using nearshoring, lowering labour costs is not the major determinant because such savings are quite modest. Conversely, transport cost reductions are of considerable importance; the proximity of plants and main markets gives a clear reduction in shipping costs and transit times, which improves delivery and storage efficiency.

In terms of coordination between a firm's home country headquarters and its manufacturing plants, operational improvements may be relevant because, for instance, coordination is done, not only via telematics but also by face-to-face contacts (Fratocchi *et al*., 2014) which are facilitated not only by closer geographical distance but also by cultural and organisational proximity. Similarly, intellectual protection is easier thanks to the similarities between the institutional structures. Obviously, nearshoring has some disadvantages since reducing the geographical scope of relocation implies fewer potential partners, simply because there are fewer available options.

Although, in general terms, all economic activities may be nearshored, the main candidates are those of high-tech services (e.g., finance, management, accountancy, IT services), because these facilitate rapid adaptation to customer demands, stricter quality controls and intellectual property protection. Consequently, nearshoring may be an optimal strategy for firms in developed countries aiming to keep their international competitiveness in terms of production costs, while increasing their flexibility. Here, U.S. and Western European firms seem to have some advantages, as there are potential nearshoring areas close to both territories (Canada and Latin America around the U.S., and Central and Eastern Europe close to Western Europe).

Mexico and Latin America are key markets for the United States. Mexico is closer, its labour force is cheaper than domestic workers, and the intellectual property risk is minimal due to strong Mexican intellectual property laws. Mexico's workforce is highly skilled and educated, and annually generates a larger number of engineer graduates than the U.S. (Selko and Vinas, 2012). In addition, NAFTA (North American Free Trade Agreement) provides multiple benefits to U.S. firms engaged in any type of offshoring with Mexico. Consequently, Mexico appears as an excellent destination for both offshoring and nearshoring, although recent disruptions in international trade under the Trump administration generate some uncertainties.

The early 2000s saw a rapid expansion of business service centres in Central and Eastern Europe, which generated employment and had widespread effects on the local labour markets (Micek *et al*., 2011). Despite that, the highly positive image disseminated by policy makers and by the media of the BPO / SSC[6] sector differs, at least partially, from the true local and multiplier effects. In this sense, Micek *et al*. (2001) argue that although BPO / SSC centres contribute positively to employment generation in the short term, these organisations are not an optimal solution for labour market problems. This is a similar process than that of some Mediterranean countries that have largely benefited from receiving activities ranging from non-core (call-centres) to core ones (accounting, R&D, customer relations) of Western Europe firms, aiming to improve their competitiveness moving East (Meyer, 2006). Some complex services require a strong interaction with customers which necessitates cultural and linguistic skills (service centres capable of operating in European languages), similar time zones, a skilled workforce and geographical proximity. In

[6] BPO refers to Business Process Outsourcing and SSC to Shared Service Center.

addition, there are close geographical, political and cultural ties with Western Europe, and EU accession has reduced external risks and simplified administrative costs (Gál and Sass, 2009).

Currently, the IT industry is booming in Central and Eastern Europe thanks to offshoring by Western European firms, and to the advantages of shared EU institutional settings, which include the legal and regulatory environment, full protection of intellectual property rights, and data protection legislation. The main factors behind the delocalization of the IT sector are not related to cost efficiency, but primarily to human capital shortages in origin countries, and to expanding markets in the host countries. In Central and Eastern Europe, there is flexible human capital with a very high level of competence. Other strengths include cultural proximity to Western Europe, EU member countries and the United States (Guzik and Micek, 2008). Although it is not easy to make predictions about the future attractiveness of this area, it seems that the nearshoring competitive advantage of these countries will persist for some years, even while potential negative effects for them are acknowledged (Mlody, 2016).

Other potential receivers of nearshoring are relatively underdeveloped European regions that traditionally host plants relocated from core areas. Perhaps the most evident example is the South of Italy, a potential destination for nearshoring (NetConsulting, 2014) because of its relative lower wages (e.g., about 30% below of those of Northern Italy), the availability of a skilled workforce (i.e., about 22,000 graduates in technical domains every year) and number of technical firms (i.e., about 20,000 ICT firms). Nevertheless, manufacturing activities in developed countries still suffer from high cost differentials relative to typical destination countries (Ancarani *et*

al., 2015) which need to be solved through digital transformation and the so-called "Industry 4.0" (Barbieri *et al*., 2018).

Finally, it is worth mentioning that, although the origin of nearshoring is mainly a previously offshored facility, it is also possible that offshoring and nearshoring may be alternatives for firms located in high-cost countries who aim to increase their competitiveness by moving greater (offshoring) or lesser (nearshoring) distances.

4. Public policies supporting backshoring: an overview

Among the factors that influence a location's attractiveness for a firm, public policies may play a key role (Ellram *et al*., 2013). To increase their competitiveness, many countries have recently begun to adopt public policies that promote manufacturing. In countries that had offshored an important part of their manufacturing activities, some (re)manufacturing policies include measures favouring backshoring (De Backer *et al*., 2016). Such countries include the U.S. and European countries such as Germany, the U.K., France, and Italy. Nevertheless, it is important to stress that even though, at times, firms benefit from public policies when backshoring, nevertheless they may backshore even without them.

Starting with the Obama administration, (re)manufacturing has been a key priority for U.S. The former U.S. President notably said that "I want us to be known for making and selling products all over the world stamped with three proud words: 'Made in America'. And we can make that happen. I don't want the next generation of manufacturing jobs taking root in countries like China or Germany. I want them taking root in places like Michigan and Ohio and Virginia and North Carolina. And that's a race that America can win. That's

the race businesses like these will help us win" (Obama, 2012a). His administration instituted a wide range of policies in many industries,[7] aiming at creating new manufacturing jobs and in discouraging offshoring. These included tax incentives for firms' reported production in the United States, lower taxation for firms creating jobs in manufacturing, promoting synergies between universities, research centres, and firms (e.g., the Advanced Manufacturing Partnership Steering Committee), increasing technological partnerships with Defence Advanced Research Projects Agency (Ricciardi *et al*., 2015) and aiding U.S. state tax incentives for backshoring to specific areas (Obama, 2012b). Specific financing programs were also designed for the car industry ("The Automotive Industry Financing Program", AIFP) and, among these, the Advance Manufacturing Partnership Steering Committee is of key interest as several initiatives were recently promoted aiming to foster transition to new 21st century manufacturing schemes (Ricciardi *et al*., 2015).

The U.S. is of special interest as it has one of the lowest production costs of any major developed economy (Sirkin *et al*., 2011) thanks to low labour costs, a very flexible labour market, a firm-oriented legislation, a very skilled and productive workforce, and low energy costs (e.g., shale gas). Furthermore, the government offers many incentives to firms that contribute to technological improvement and energy innovation. In addition to these public policies, there are private efforts to help firms to bring back manufacturing activities to the U.S. such as the "Reshoring Initiative", a non-profit organization

[7] Barack Obama launched several specific programs (Vanchan *et al*., 2018; The Boston Consulting Group, 2011) aimed at increasing the competitiveness of U.S. manufacturing industries; these included job training and placement programs ("Skills for the Future Initiative"), the promotion of innovation ("Supply Chain Innovation Initiative"), support for SMEs ("Manufacturing Extension Partnership") and creating industry-oriented research centres ("New Revolutionary Fibers and Textiles Manufacturing Innovation Institute" and "Advanced Technology Vehicles Manufacturing Program").

which monitors the phenomenon of backshoring in the U.S. and encourages firms to take advantage of incentives to locating back to the U.S.

The Trump presidency underlines the strong public perception of a causal relationship between backshoring and job creation (Vanchan *et al*., 2018). Concretely, his administration has fostered efforts to backshore manufacturing activities to the U.S., but focusing on cutting down production costs, rather than on providing incentives for innovation. Several measures have been implemented as a drastic reduction of firms' taxes (e.g., President Trump defined that policy as "the largest tax cut in U.S. history"), as public intervention in labour security and product warranty, as an up to 75% reduction in the legal standards regarding environmental protection, and as significant duties on imported products to guarantee that production is strictly "Made in the USA" (Molinari, 2017).

The European Union is also interested in providing incentives to the manufacturing sector, although have not yet been translated into public policies. The European Commission has designed measures like those of the Obama administration aiming to support employment recovery by favouring backshoring of European manufacturing. Backshoring has frequently been cited among the objectives of various EU institutions, as in the European Parliament's "Renaissance of Industry for a Sustainable Europe Strategy", a part of the Europe 2020 Program which aims at increasing the share of EU GDP to 20% (De Backer *et al*., 2016).

Apart from general backshoring efforts undertaken by the European Commission, there are several European countries (noticeably, but not only, the UK and France) with specific supporting programs, or

where local firms are implementing strategies. In countries like Italy, such initiatives often receive considerably lower public support.

Among UK manufacturing industries, extensive offshoring of production plants has largely affected the clothing industry, thus creating fragmented global supply chains. In this regard, long-term relationships are important for managing a sustainable supply network because they contribute to the resources that a firm can harness in its supply practices (Ashby, 2016). Among the main issues that have affected the backshoring of clothing firms in the U.K. (specifically, of luxury brands) are the increase in production costs in Asia, their decrease in quality, the inflexibility of supply chains, and the lack of production responsiveness in destination countries (Moradlou *et al*., 2017). Additionally, the mass media have positive attitudes towards backshoring (Robinson and Hsieh, 2016).

In terms of overall support for backshoring, the U.K. has embraced several policies (Morris, 201) that reduce, even if in an indirect way, taxes and bureaucracy. The UK Trade & Investment (UKTI) governmental agency has launched the "Reshore UK plan" to support firms that want to backshore activities to the UK. It provides services that include an assessment of the potential success of a repatriation strategy, and direct assistance in developing the strategy; a planning strategy that looks for new supply opportunities and an action and support plan to improve quality, production costs and shipping times. In addition, the UK government finances the "Advanced Manufacturing Supply Chain Initiative (AMSCI)" to encourage suppliers to improve the competitiveness of UK supply chains by transferring their production to the UK (Polastri and Viggiano, 2016). Furthermore, public opinion is of key importance as demonstrated by success of campaigns like "Business is GREAT" and the "Made in the UK" brand (Robinson and Hsieh 2016).

France is another European country that has lost an important share of its manufacturing activity in recent years, and which is trying to reindustrialise as a growth strategy (partially through backshoring). A survey launched in 2013 by the Ministry of Industry Renewal shows that 60% of backshored firms received support from the central government and / or local authorities (De Backer *et al*., 2016). Concretely, the French Ministry for Industrial Renewal has identified three types of reshoring – "tactical reshoring", "home reshoring" and "development reshoring" (Bellego, 2014). According to this typology, the first is carried out by major corporations trying to ascertain the most appropriate sites, the second is chosen by firms that have suffered organisational problems in their previous offshoring decisions, and the third corresponds to French family-owned SMEs that want to consolidate their market position. France also has the particularity that local consumers accept paying higher prices for French manufactured products, a willingness that coexists with a "Made in France" policy that aims to maintain the country's traditional manufacturing share. The *Agence Française des Investissements Internationaux* (AFII) has developed *Colbert 2.0*, an innovative web-based tool that helps firms to find out the best venue for their relocated plants, aiming to keep as much activity as possible in France. In addition, there are several tax deductions that increase the attractiveness of the country as a backshoring destination (Polastri and Viggiano, 2016).

Italy is another example of dynamic manufacturing industry being organised as locally specialised industrial districts (Becattini, 1998) which have experienced a strong manufacturing restructuring (Bellandi and Caloffi, 2014) that has partially destroyed that model, and has weakened local production systems. Although, triggered by inadequate fiscal policies (Rullani, 2014), Italian manufacturing has

suffered from important waves of offshoring to low-cost production areas, backshoring nevertheless arises mainly from the spontaneous choice of individual firms, rather than from existing industrial policies (KPMG, 2015). Despite remedial efforts, data shows that the current ratio between offshored and backshored firms is 3 to 1, so there is still room for policy measures to encourage reshoring (Ricciardi *et al*., 2015). The Italian experience of backshoring is of interest in view of the contrast between lack of public support policies, the existence of important disincentives (e.g., energy costs and taxation levels) and, surprisingly, increasing examples of its occurrence especially among firms producing in the highest quality segments (Zhai *et al*., 2016). These examples correspond mainly to clothing and shoes firms that rely on the prestige of the "Made in Italy" label. These were the industries that previously offshored most to overcome the lack of competitiveness of Italian products caused by the high wages of specialised labour. Surprisingly, the Italian government has not yet followed the French example in terms of promoting a "Made in Italy" brand (KPMG, 2015), nor has it implemented consistent policies fostering backshoring. [8] Nevertheless, there are some regional examples such as those of the Piemonte region that established the "contratto di insediamento" supporting both FDI and the resettlement of firms that had previously relocated production abroad.

In previous sections, we have shown how offshoring and backshoring have shaped manufacturing activities and the spatial distribution of production worldwide and how, in some ways, backshoring has been considered as a policy strategy for economic crisis recovery (Barbieri *et al*., 2018). Although empirical evidence suggests that backshoring

[8] With the notable exception of Letta's government in 2013 (the "Destinazione Italia" project), in which 50 measures were designed to attract foreign and Italian offshored firms, including a tax wedge, the single labour law and some mechanisms to facilitate tax issues (www.gazzettaufficiale.it).

is still a limited phenomenon (and nearshoring is even scarcer), it is reasonable to assume that both backshoring and nearshoring will relatively soon increase significantly. Since supply chains have been transformed in recent years, moving from a local to a global dimension, backshoring strategies should take these changes into account (Bettiol *et al*., 2017). Another reason to favour government and industry incentives stimulating backshoring, is based on the empirical evidence indicating that the benefits of backshoring usually outweigh the costs (Brandon-Jones *et al*., 2017).

Despite the huge potential implications of backshoring and nearshoring, up to now public policies have not played a major role in shaping firms' decisions to backshore (Lee, 2008), which suggests that further efforts are still needed in developed countries (Albertoni *et al*., 2017). Among them, it is important to highlight how public opinion in developed countries is increasingly ready to pay a premium prize for locally manufactured products (Barbieri *et al*., 2018), a circumstance partially explained by the role of "Made in" effect as one of major determinants for backshoring decisions.

5. Conclusions

Michael Porter said that "(…) a lot of CEOs offshored too quickly and too much" (The Economist, 2013), and he was right. The backshoring phenomenon cannot be fully understood without recognizing that not only were expected advantages overestimated, and production costs underestimated, but also that massive offshoring significantly increased labour costs in destination countries.

In this paper, we have shown that backshoring drivers often coincide with those of offshoring but in the opposite direction. The

determinants include increases in labour costs, productivity constraints, the scarcity of skilled staff, lack of innovation, difficulties of protecting intellectual property, lower quality standards, a lack of flexibility and government incentives (i.e., push for offshoring and pull for backshoring).

In countries like U.S., U.K., France and Italy, the drivers of backshoring have been mainly operational decisions taken by firms, without clear and consistent policy guidance by public administrations. The exception is the United States, where the "Made in America" label has kept and attracted U.S. manufacturing firms. In Europe, efforts have been less intense, although some policies aiming at increasing firms' competitiveness in terms of taxation, innovation activities and quality certification have been implemented. Regional and local public administrations have begun to increase their efforts to bring back economic activity. It is noticeable that some of these public efforts emphasize value added and the prestige of such labels as "Made in U.S.A.", "Made in France" and "Made in Italy". A noticeably lower effort has been put into "Made in Germany", surely because it has kept its prestige over the years and offshoring has had little foothold.

Successful measures aiming to favour backshoring need to be multi-faceted. Firstly, one must ensure either national-based or backshored competitive advantages to firms (Porter, 2011). Governments should not only create simple short-term cost benefits through incentive policies, but also implement a broader policy strategy that develops advanced competitive advantages and provides collective goods and services fostering competitiveness (Crouch *et al*., 2004). Strong synergies must also be generated between firms and their economic environments (Ricciardi *et al*., 2015).

Secondly intelligent specialisation is required in those activities where developed countries have competitive advantages in a globalised world. This strategy implies emphasizing the national prestige (e.g., "Made in Italy") of those (mainly) knowledge-intensive activities and industries for which there is a long tradition and an image of repute. This acknowledges that only a fraction of previously offshored firms will backshore, and that national specialisation should move towards the so-called Industry 4.0 and transform traditional factories into digital factories using technologies such as robotics, smart machines, process automation and 3D printing.

The new phenomenon of nearshoring is expected to grow significantly. It may represent a feasible solution to the ongoing debate between keeping production abroad and moving it back home, since it allows a firm to combine the advantages of both these strategies. By striking the right balance between proximity and costs, it may combine the advantages of offshoring with those of backshoring.

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Table 1: Some definitions

RETURN RELOCATION	Jungnickel (1990)	Total or partial closure of a delocalized unit or its return home.
IN-SHORING	Skipper (2006)	Opposite practice of relocation.
	Dholakia N. et al. (2012)	Previously delocalized functions or newly established activities take place in the national establishments.
BACKSHORING	Holz (2009, p.156)	"(…) the geographic relocation of a functional, value creating operation from a location abroad back to the domestic country of the company".
	Kinkel (2014)	**Outsource backshoring**: production entrusted to third parties.
		Captive backshoring: the company owns foreign establishments.
RESHORING	Gray et al. (2013)	Bring back production activity to home.
		Outsourced reshoring: activities entrusted to foreign suppliers, then performed by national suppliers.
		In house reshoring: activities previously carried out in foreign affiliates, then by nationally owned structures.
		Reshoring for outsourcing: production carried out in foreign property plants, now entrusted to national suppliers.
		Reshoring for insourcing: manufacturing activities carried out first by foreign suppliers, then by business units.
BACK-RESHORING	Fratocchi et al. (2014, p.56)	"(…) a voluntary corporate strategy regarding the home country's partial or total relocation of (in-sourced or out-sourced) production to serve the local, regional or global demands".

Source: Author's summary.