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RESEARCH ARTICLE

How Does Protectionism Impact Multinational Firm Reshoring? Evidence from the UK

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Abstract

There is growing interest in the nature and possible extent of de-globalization. This paper explores the impact that protectionist measures have on multinational enterprise (MNE) reshoring back to the UK. Besides taking into account the global trends indicating a return to protectionism, the existing literature highlights various firm-level and structural country-level determinants of reshoring decisions. We test a conceptual model with parent-subsidiary firm-level data for the period 2009 to 2017. We conclude that firms that are more sensitive to wage costs in their overseas subsidiaries were more likely to reshore. We did not find that more capital-intensive firms had a higher propensity to reshore. We find that our results are mostly driven from UK MNEs with subsidiaries in EU. This result has clear implications for a potential Brexit effect. Theoretically, we base our findings in transactional cost economics to help explain why different types of firms behave in the way they do, and why different types of firms may respond in quite different ways to the same mix of institutions.

Keywords Multinational Enterprises · Reshoring · Protectionism · UK

1 Introduction

The last decade has witnessed significant political and economic uncertainty on the back of events such as the election of Donald Trump in the US as well as the UK's 2016 vote to exit the EU, not to mention the increasingly visible effects of climate change and the COVID-19 pandemic; all these have challenged the previous

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trend towards globalization. It has been argued that a backlash to the latter, which included both Trump's election and Brexit, can be traced back to China's entry in the WTO in 2001 (Witt et al., 2021). A frequent argument is that, in the two decades since its WTO accession, China has experienced substantial economic development, which in part has been driven by significant international trade and investment expansion (World Bank, 2021), but at the cost of jobs in traditional manufacturing countries (Enderwick, 2011). In turn, the latter was ascribed to failures in existing trade and tariff policies, and, indeed, in the overall WTO trading regime. The continued decline of manufacturing jobs in the US and other developed countries, and fears pertaining to the loss of relative national advantage, continues to fuel calls for greater protectionism and unilateral solutions (Petricevic & Teece, 2019; Evenett, 2019; Milner, 2021). In turn, this may have led to the return of mercantilist policies (Evenett, 2019). It has further been argued that the COVID-19 pandemic has shown the structural and operational limitations of global value chains, and magnified a trend towards reshoring (Barbieri et al., 2020).

In brief, there has been much debate in international business, economics, and logistics as to the scale and scope of the present protectionist turn, and pressures toward moving production back home (Evenett, 2019; Barbieri et al., 2020; Butzbach et al., 2020). However, as Kano et al. (2020) noted, much more research has been conducted on the scale and scope of protectionism than reshoring (cf. Delis et al., 2019; Pereira et al., 2019). Other work has suggested that, given the interconnected nature of the global economy, any protectionist turn is likely to have short-lived effects, with pressures towards reshoring amounting to less than initially assumed (Contractor, 2021). It has further been argued that there is room for policy fixes that might make for more sustainable multi-stakeholder partnerships both at home and abroad (Findlay & Hoekman, 2021).

Methodological tools have been developed by both Head and Mayer (2018) and Delis et al. (2019) and crucially focus on the indicators that capture protectionist tendencies across countries. Our paper extends the analysis by Delis et al. (2019) in various ways in order to build on the understanding of reshoring. First, we include the protectionist dimension to the analysis, which goes beyond the mere inclusion of firm-level variables, which we subsequently show to be significant in explaining reshoring. Second, this paper focuses exclusively on the UK only, whereas Delis et al. (2019) had an OECD sample. The importance of choosing the UK is to exploit the change in trade policy that has led to a more restrictive trade environment. Third, we use both parent and subsidiary variables in order to disentangle from where the statistical significance of relative (parent-subsidiary) variables comes from. Fourth, the sample period is updated and we go beyond the manufacturing sector with a larger sample. Fourth, we have also many more controls and fixed effects in the econometric modelling. Last, but not least, this study also uses a different estimation strategy in combination with more specifications that help in uncovering the various different drivers of reshoring for UK MNEs. More specifically, this paper's analysis is able to disentangle the reshoring effect that comes from subsidiary specific variables in comparison with the home country variables.

What our study finds it that firms, which were more sensitive to relatively subsidiary wage costs, were more likely to reshore. We did not find that more capital-intensive firms were more prone to reshoring. As such firms are more likely to favour shorter termist, instrumental and market-based approaches to contracting with labour and other actors (cf. Teece, 1986), it could be argued that the quality of reshoring in the UK is poor. Moreover, this tendency was primarily encountered in reshoring from the EU. This would reflect the extent to which the EU is much less conducive to low wage, low capital intensity production than many other parts of the world. Conversely, the UK may be less attractive to high value-added firms on account of limitations in skills and the availability of patient investment (Bailey & De Propris, 2014a). It also reveals the extent to which different types of firms respond in quite different ways to similar institutions (cf. Steele et al., 2019). Finally, Brexit[1] could have negative consequences for reshoring in the future; the uncertainty it has unleashed could make the country less attractive, even for those who base their business models on short term instrumental contracting.

2 Internationalization and Reshoring: What We Know

The literature on offshoring and internationalization has amassed a wealth of evidence that documents and explains how MNEs have taken advantage of lower barriers to trade and investment. Over the past three decades, the existing MNE global value chain network has been analyzed in much detail both conceptually (Buckley, 2011) and empirically (Hernandez & Pederson, 2017). Insights into the workings of MNEs have been derived early on from internationalization theory (Buckley & Casson, 1976) and Rugman's (1981) framework, which explains different forms of internationalization by way of combining firm- and country-specific factors. In general, these and other dominant IB theories have viewed offshoring as a two-step strategic process whereby MNEs first identify the various activities to be offshored (and retained within their own boundaries and ownership) and then choose the foreign country in which to offshore them.

Much literature has focused on understanding how MNEs view and strategize on the differences between home and host country environments, such as institutional and cultural differences, and on political factors, such as global government efforts aimed at attracting foreign direct investment (FDI). Early work by McAleese and Counahan (1979), Boddewyn (1983), Siegfried and Evans (1994) show how cost and risk changes explain subsidiary performance dynamics. More recent work, especially in IB, has shown that many hidden costs of offshoring are embedded in the complexities linked to managing a large network of knowledge-intensive activities in foreign subsidiaries (Lewin et al., 2009; Larsen et al., 2013). As a consequence, many MNEs seldom experience the expected level of benefits or cost savings in foreign markets, which leads to the realization that managing a globally dispersed

[1] It is important to note that here with the current time period in our sample, it is challenging to directly test the effect of Brexit on Reshoring.

organization can often be costlier than expected (Dibbern et al., 2008; Stringfellow et al., 2008).

Over the last two decades, the challenges linked to maintaining a functioning and efficient global supply chain and a network of performing foreign subsidiaries have led to a partial reversal of MNE offshoring decisions. Building on the firm-exit literature, the literature on reshoring examines the trend whereby MNEs repatriate activities that they had offshored. For example, Bailey and De Propris (2014a) showed that increased foreign labor costs, transportation costs and increased access to domestic inputs have made more viable the relocation of activities back to developed countries. Other factors leading to increased reshoring include challenges in managing supply chains, trade and investment policy changes, factor costs, network effects, geographic distances, and a more focused view of value and quality, rather than the cost of the offshored activity itself (Gray et al., 2013; Ellram et al., 2013).

Other work suggests that there has been a return to state interventions, and national policies are having an increasing impact, especially in relation to manufacturing relocations (e.g., Stentoft et al., 2016; Tate, 2014). For example, the US government has intensely pushed for two key programs - namely, the Advanced Manufacturing National Program (AMPSC, 2012) and the Tax Cuts and Jobs Act (TCJA) - which offer huge incentives to reshore manufacturing back to the US. Further, according to the Boston Consulting Group (2013), reshoring could have created between 2.5 and 5 million jobs in the US by 2020. In the case of the UK, the UK Trade & Investment and the Manufacturing Advisory Service (MAS) launched the "Reshore UK" program, aimed at helping firms reshore production (GOV.UK, 2014). In Germany, the government launched the "Industry 4.0" program, which, as its US and UK counterparts, financially incentivizes firms to reshore and strengthen their manufacturing sectors by repatriating the related activities (Federal Ministry of Education and Research, 2015). In other words, those firms that had offshored to drive down costs may be inclined to reshore if given the option of shifting some of those costs onto their home governments.

Based on evidence drawn from recent groupings of systematic literature reviews on the topic of reshoring, Boffelli et al. (2020) argued that a significant part of the literature has hitherto focused on the drivers or motivations of reshoring (e.g., Barbieri et al., 2018; Stentoft et al., 2016; Wiesmannetal, 2017). Terming the initial focus of reshoring a 'dual view', Barbieri et al. (2018) identified how reshoring was being interpreted either as the correction of a managerial mistake (e.g. Grandinetti and Tabacco, 2015), or as a strategic decision made in response to exogenous or endogenous changes (e.g., Fratocchi et al., 2015).

More recently, the COVID-19 pandemic has heightened the concerns linked to de-globalization, increased regionalization, and global value chain reconfigurations (Delios et al., 2021; Branicki et al., 2021). The pandemic has exacerbated tensions around trade issues, medical equipment, vaccines and other supply chain disruptions, nationalistic and direct or indirect (e.g. exiting a trading bloc) protectionism (Devinney & Hartwell, 2020; Enderwick & Buckley, 2020), and challenges to political and supranational institutions (Hitt, Arregle, & Holmes, 2020). Cuervo-Cazurra et al. (2020) discussed some of the general ways in which MNEs counter or strategize in the face of globalization skepticism and of the sentiments that are subsequently

implemented by increasing cross-border policy changes. These include increased flexibility in global value chains and increased localization of global operations (see also Buckley and Hashai, 2019). Despite the accelerated nature of events leading to anti-globalization policies and the context of the pandemic, it is important to gain a better understanding of the antecedents of the political uncertainty and protectionist policies that are affecting MNE activities, in particular reshoring. The importance of new insights, a conceptual understanding, and empirical evidence is warranted due to the growing scope and depth that the implications of such events, backed by populism and nationalism, have on firms in general (Ghauri et al., 2021). Below, we attempt to frame our hypotheses clearly and robustly on the relevant literature, scant as it may be.

2.1 Reshoring Reasons and Drivers

Rather than being driven by theory, much of the broad body of literature on reshoring is rooted in operational management and its phenomena. Any deployments of theory tend to be rather eclectic; for example, Serrano et al. (2018) called for a combination of the resource-based view, strategic management, and transaction cost economics. In reviewing the existing research evidence, McIvor and Bals (2021) concluded that reshoring is driven by changes in strategy and in the environment, and by managerial recognition of past mistakes. Delis et al. (2019) concluded that reshoring follows particular waves or temporal cycles (the *when)*. Their results suggest that the increased reshoring that followed the 2008 global financial crisis was spurred by home country deflation, which made it convenient (Delis et al., 2019). However, their results show that the effect of the global financial crisis on reshoring decreased with the distance between the parent companies and their subsidiaries. Oshri et al. (2019) argued that, although firms not infrequently become disappointed with their experiences of offshoring, any reshoring decision depends crucially on managers' forecasts of future developments, internal political backing, and financial considerations. Their analysis confirmed their arguments and they proposed a model based on data drawn from US and UK firms.

A common theme through this literature is the issue of managerial choice and of any restraints placed on it. Transaction Cost Economics (TCE) highlights the tendency of economic actors to be opportunistic (Poppo & Zenger, 1998). Certain assets are likely to constrain such behavior. For example, managers may be more opportunistic if labour is cheap and readily disposable, and the converse be true if there are high levels of human capital within an organization that cannot be easily disposed of. Critics of TCE have noted, that respect of the latter, cooperative production paradigms and close ties with suppliers and other actors will make coordination more efficient, potentially compensating for the costs of forgoing opportunism (Allen, 2004). However, this is not to suggest that such opportunism might not exist in the first place. Reshoring may be prompted by changes in relative costs, but, above all, by any relative (lack of) restraints posed on the movement of capital, managerial choices to redeploy it, and property rights protection (Urry, 2014). Again, although critics have argued that restraints on excessive managerial short-termism

may be beneficial to certain production paradigms (above all, high wage, high skill, incrementally innovative manufacturing) (Allen, 2004), both TCE proponents and critics alike argue that UK firms operate under a regime where shareholder rights are prioritised, and hence, in turn, is likely to shape their attitudes and strategies towards operations in other countries.

The International Country Risk Guide's (ICRG) investment profile is a metric that ranks countries according to their attractiveness in terms of property and contractual rights, ability to repatriate profits, and speed in transferring money across national boundaries. We use Relative Investment Profile, which is the ratio of UK's Investment Profile to the Investment Profile of the country where the subsidiary is. Hence, we hypothesize that:

H1: An MNE is more likely to reshore if its home country's relative investment profile improves.

2.2 Protectionism, Reshoring and MNEs

Enderwick and Buckley (2020) noted that the currently ongoing protectionist turn has affected business areas such as trade, international investment screening, global value chains (GVCs) and technology transfer (see Quaglietti, 2018; Wernicke, 2020; UNCTAD, 2020, Sukar and Ahmed, 2019, respectively). Rodrik (2019) argued that the role of the State in pulling back from global interests in favor of regionalism or populist protectionist agendas against a global backdrop of growing hyper-globalization is becoming a trend. This de-globalization movement has, in a sense, been ongoing for the last decade or so, beginning with the 2008 global financial crisis (GFC)—see the relevant arguments made by Witt (2019), UNCTAD (2020), and Irwin (2020), who coined the term "*slowbalization*" in the post GFC period. Thus, the effects of de-globalization are felt by both markets and technology, in turn significantly affecting firm location decisions in relation to outsourcing (Mudambi et al., 2018).

This protectionist turn may appear difficult to explain in terms of hyper-globalization; while governments may wish to mitigate its costs, the range of pertinent policy tools at their disposal may be limited (Grimalda et al., 2020). Although reshoring may indeed help cost cutting by reducing the time to market and making for greater efficiencies (Pereira et al., 2019), Pegoraro et al., (2020) made the case that protectionism, trade wars, and national interests do not automatically lead to reshoring if the benefits of offshore outsourcing are justified either technically or fiscally. Put simply, even if governments wish to return to protectionism, any measures they put in place to that end may prove to be ineffective, as capital will naturally flow to areas with fewer restrictions (Urry, 2014), a view that is closely aligned to the broad TCE tradition. Although protectionism may be attractive to firms based on prospects of oligopolistic market positions, for a few winners, many other firms, typically less politically influential ones, are likely to lose out (Neary, 1994). Hence, we hypothesize that:

H2: MNEs are less likely to reshore as protectionist measures increase.

2.3 Labor Intensive Firms, Offshoring and Reshoring

Hyper-globalization theories suggest that a major driver of offshoring was the opportunity to cut labor costs (Maertz et al., 2010). Accordingly, Żuk and Żuk (2018) suggested that any tendency to reshore will be shaped by the relative availability of cheap labor; TCE tends to see labour primarily in cost terms, rather than in terms of the benefits that may unleashed through cooperative production paradigms that will necessarily restrain managerial behaviour (Allen, 2004). However, hyper-globalization theories do acknowledge the persistence of national level institutions and, indeed, that specific production paradigms may be more dependent on knowledge, skills, and capital intensity (De Ville, 2008). Traditionally, from the start of the offshoring phenomenon, developed country firms were inclined to keep performing any idiosyncratic high value-added activities—that mainly included strategy, R&D, and client or customer facing work—at home. On the other hand, these developed country MNEs tended to move their low value-added activities, especially labor-intensive processes, to developing countries (Gereffi & Fernandez-Stark, 2016; Pereira and Malik, 2015; cf. Shih, 1996).

The GVC literature suggests the existence of a shifting process whereby the lowest value-added business processes are moved to developing countries (Baldwin et al., 2014). However, offshoring does have hidden costs—such as those linked to longer lead times, transportation, intellectual property losses, and cultural differences—which may be challenging in relation to of higher value-added production paradigms (Contractor et al., 2010; Pereira et al., 2019). Further, the positives linked to not outsourcing or offshoring, including being in control of the production stages, have led many companies to re-think their international value chains in terms of location choices. (Boffelli et al., 2020). This leads to our third hypothesis:

H3: The more relatively capital-intensive an MNE is, the more likely it is to engage in reshoring.

2.4 Brexit as a Trigger to Higher Uncertainty

Barnette et al. (2020) recently provided evidence on reshoring by drawing on primary and secondary data pertaining to reshored firms in Sweden and the UK, thus providing a deeper understanding of the role played by governmental drivers in the reshoring process. A similar discussion pertains to the impact of Brexit on the automobile industry in the UK (Bailey & De Propris, 2017). Likewise, Laraqui and Jarreau (2019) explored the consequences of the UK referendum to leave the EU, wherein they argued that the economic challenges posed by Brexit are clear and go against economic rationality.

Brexit did not happen suddenly on June 2016. There has been a long campaign for at least 3 decades by Eurosceptic groups, especially within the Conservative party,

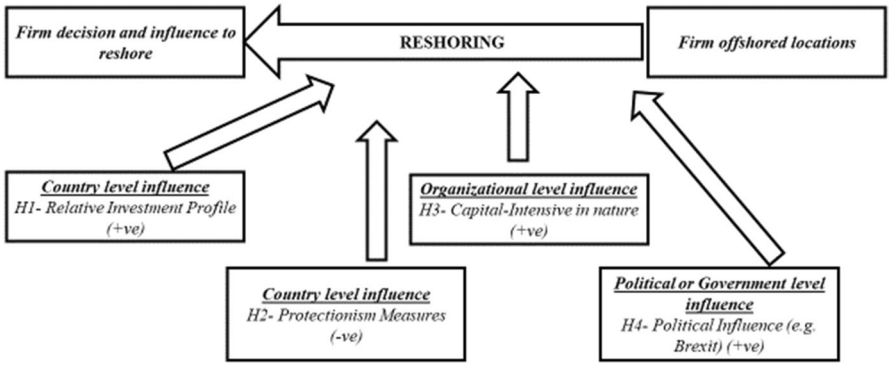

Fig. 1 Model depicting the country, organizational and political influences on reshoring, as a protectionist measure

to establish a new relationship between UK and EU that it is less deep economically and that it allows for political and legislative divergence between the two. The most intense discussion began sometime in early 2014, when the then British Prime Minister David Cameron announced his intention to hold a referendum on Brexit, should his party return with a majority government in the forthcoming General Elections of May 2015. Hence, discussion about Brexit and the associated negative economic and business consequences made the news at least in the business community since 2014.

Under this background, UK MNEs with significance presence in terms of subsidiaries in EU, had probably initiated plans to rearrange their EU value chains under a potential Brexit scenario. In sum, such a scenario would incorporate increased trade frictions and barriers to trade with EU. This meant that UK based MNEs with significant value chains and subsidiaries in the EU will, ceteris paribus, be more negatively affected on their foreign operations by Brexit compared with UK based MNEs with less subsidiaries in the EU. Hence, the possibility of erection of barriers to trade with the EU, due to Brexit, will cause reshoring to be more evident among those MNEs that have a higher share of their subsidiaries in the EU. Based on the above arguments, this leads to our fourth hypothesis:

H4: UK based MNEs are more likely to reshore activities from EU subsidiaries than elsewhere.

As depicted in Fig. 1 (our model), firms are subjected to several levels of influence in regard to any decision on whether or not to reshore. The first such influence on reshoring is wielded at the country level and we identified two variants of it: H1, the Country Institutional and Investment Profile, which we hypothesizes to be positively related to any increase in reshoring; and H2, Protectionist Strategies and Practices, which we hypothesized to be negatively related to increased reshoring. The third level is Organizational (i.e. linked to any differences in K/L between the parent company and its subsidiaries), which we hypothesize to be positively related to reshoring. The fourth influence level is Political or Governmental (e.g., host

country of reshored subsidiaries), which we hypothesized to be positively related to increased reshoring. As depicted in Fig. 1, despite the positive and negative influences, firms decide to reshore primarily once they have determined whether the transaction is profitable or successful. Thus, only after considering their own ability and the viability of their offshore operations, of doing business faster, better and more cheaply (Pereira and Malik, 2015), including transaction costs, do firms make decisions to reshore. We hypothesized that, even in the presence of protectionist measures, if a firm does not identify an individual gain, it will not resort to reshoring (Hypothesis 2). However, from an institutional standpoint, if there is a strong country level investment portfolio that is financially attractive, firms tend to reshore to take advantage of it (Hypothesis 1). Similarly, from an internal perspective, if the parent firm's relative wages increase, the likelihood of it reshoring is lower for the reasons and motivations discussed in Hypothesis 3. Lastly, the governmental or political influence also plays a huge role in firms' intentions to reshore, as we have seen in the case of the US, the UK, and Germany (Hypothesis 4).

Based on the above discussion and theorization, we thus aimed to test the above conceptual model with bi-lateral firm-level data for the UK and various other countries, specifically those in the EU, where UK MNEs have their subsidiaries. We focused on indicators that captured the protectionist tendencies across countries for the 2009–2017 period.

3 Methods

3.1 Data and Sample

We used the Orbis dataset for the UK for the 2009–2017 period. This contains information drawn from the balance sheets and profit and loss accounts of firms residing in the UK. Furthermore, we complemented this financial information with that related to the UK MNEs' ownership of foreign and domestic subsidiaries. More specifically, we found which UK domestic firms had ownership stakes in firms located abroad. In addition, we obtained information on the percentage of ownership involved in each parent-subsidiary pair. Moreover, we use Orbis to gather and merge the financial variables information for the subsidiaries based abroad. Our dataset thus presented one of the most detailed pictures of the UK-based parent firms and their subsidiaries.

Our unique dataset encompassed firm level financial information for all UK owned firms, British parents, their foreign subsidiaries, and the ownership percentage of each parent. Our original sample encompassed 496,183 firm-year observations. However, there were between 130,478 and 338,038 missing firm-year observations pertaining to our variables of interest. We then removed from our sample any items for which the financial information was consolidated or limited for either the parents or the subsidiaries. This exercise reduced our sample to 170,288 firm year observations. We then proceeded to delete all negative values found for either parents or subsidiaries in relation to wages, capital, and operating revenues. In addition, we excluded some outliers for wages. We dropped all the annual wage values

Table 1 Percentage of reshoring occurrences by subsidiary country

Country of subsidiary	%	Country of subsidiary	%
Australia	0.00	Japan	0.00
Austria	0.95	Lithuania	0.00
Belgium	3.81	Luxembourg	0.00
Brazil	0.95	Netherlands	0.95
Bulgaria	0.95	Norway	0.00
China	0.00	Poland	0.00
Croatia	0.00	Portugal	6.67
Cyprus	0.00	Romania	0.95
Czech Republic	0.00	Russia	0.00
Denmark	0.00	Serbia	0.00
Estonia	2.86	Slovakia	1.90
Finland	1.90	Slovenia	0.00
France	5.71	Spain	32.38
Germany	7.62	Sweden	0.95
Greece	0.00	Switzerland	0.00
Hungary	0.95	Turkey	0.00
India	0.00	Ukraine	0.00
Ireland	20.95	USA	0.00
Italy	9.52		

higher than US$100 million and those for the UK MNEs that were found to be lower than the annual minimum wage. Our sample was thus reduced to 169,726 firm year observations. Then, due to the limited data available in regard to some financial variables, our final estimation sample contained 909 British MNEs owning 2,012 subsidiaries abroad, for a total of 12,433 firm year observations. [2]

Table 1 clearly shows that almost all of our sample reshoring occurrences (counts of reshoring incidents) were from EU countries back to the UK. The country with the most occurrences was Spain, accounting for around one third of the total 105 occurrences of reshoring to the UK. It was followed by Ireland (21%), Italy (10%), Germany (8%), and France (6%). The only non-European country that was found to be involved in a UK reshoring was Brazil, with a single occurrence.

A pattern of reshoring from nearby and large economies seemed to emerge, resembling a kind of gravity equation for reshoring similar to the gravity equation in international trade, whereby large and geographically close countries tend to trade more. This may have been driven by the nature of Orbis dataset, which presented fewer missing values for the larger European economies.

[2] The data coverage issue was found to be even more severe in relation to subsidiary-specific variables. For example the variable log of relative wage had only 13,369 non missing values, while the variable log of sales for parent had 68,276 non missing values. The final sample size was the result of many missing values for some variables in the econometric specification. We are agnostic about the distribution of missing values for certain variables across firms.

Table 2 Reshoring occurrences (%) by NACE Rev. 2 industry

NACE Rev. 2	Reshoring occurrence (%)
Agriculture, forestry and fishing	0.00
Mining and quarrying	0.95
Manufacturing	28.57
Electricity, gas, steam and air conditioning supply	0.00
Water supply; sewerage, waste management and remediation activities	0.00
Construction	0.00
Wholesale and retail trade; repair of motor vehicles and motorcycles	8.57
Transportation and storage	4.76
Accommodation and food service activities	0.95
Information and communication	10.48
Financial and insurance activities	4.76
Real estate activities	0.95
Professional, scientific and technical activities	19.05
Administrative and support service activities	11.43
Public administration and defense; compulsory social security	0.00
Education	0.00
Human health and social work activities	1.90
Arts, entertainment and recreation	3.81
Other service activities	3.81
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	0.00
Activities of extraterritorial organizations and bodies	0.00

Source: Authors calculations using Orbis

Looking at the distribution of Reshoring occurrences across industries (Table 2), manufacturing clearly emerges as the industry in which most UK MNE reshoring had taken place, accounting for about a third of the total. However, most occurrences were found to have taken place in the service industries. In particular, Professional, scientific and technical, Administrative and support service, Information and communication, and Financial and insurance activities were found to have recorded reshoring shares of 19%, 11%, 10%, and 5%, respectively. Our sample and subsequent analysis results were found to differ clearly in this dimension from those of Delis et al. (2019), who had focused their analysis on the manufacturing sector only.

Over the years, reshoring back to the UK was found to have been evenly distributed, with the exception of 2017, as indicated in Table 3. For 2009, there was no reshoring by definition and our data were found to be consistent with this. It is worth mentioning that only one instance of reshoring was found for 2017, the year after the Brexit Referendum. Some may claim that this proves that Brexit had had no effect on the decision of UK MNEs to repatriate their activities. However, on closer inspection, it is clear that the highest proportion of reshoring occurrences (18%) had

Table 3 Reshoring occurrences (%) by year

Year	Reshoring occurrence (%)
2009	0.00
2010	10.48
2011	14.29
2012	12.38
2013	14.29
2014	17.14
2015	18.10
2016	12.38
2017	0.95

Source: Authors calculations using Orbis

Table 4 Summary statistics

All firms			
Variable	Observations	Mean	Std. dev.
Relative investment profile	12,433	1.098	0.188
Harmful trade policies	12,433	0.107	0.087
Non-Reshoring firms			
K/L	12,328	6,398	60,910
Wage	12,328	414	1,487
Sales	12,328	2.66e + 05	1.05e + 06
Export dummy	12,328	0.34	0.48
Reshoring firms			
K/L	105	6,150	40,376
Wage	105	87	70
Sales	105	2.63e + 05	1.21e + 06
Export dummy	105	0.50	0.50

Authors calculation using Orbis database; values are in thousands of current USD.

taken place just the year before the referendum and a year after the Conservative government had won a majority in the British Parliament on an election manifesto that promised a referendum on EU membership. In February 2016, the then Prime Minister David Cameron announced that the UK would hold such a referendum the same year. Hence, the uncertainty and threat of worsening UK economic relationships with its largest and closer economic partners may have triggered reshoring even prior to the British electorate voted in favor of Brexit.

We were able to draw upon a very detailed dataset with a wealth of information that had not been exploited in its entirety before, despite the non-balanced coverage—due to missing values for some variables. Table 4 presents descriptive statistics for the MNEs in our sample. We can see that non-reshoring UK MNEs were found to have

slightly higher capital to labor (K/L) ratios, to pay much higher average wages, and to have higher sales figures, albeit exporting less than the reshoring ones.

3.2 Measures

3.2.1 Dependent Variable

Given that there is no universally accepted definition of 'reshoring', the literature delineates the general strategy of repatriating activities in a variety of ways. For example, Albertoni et al. (2017) defined it as "*the voluntary (i.e. not forced by host country governments) partial or total relocation of business initiatives previously offshored, whether to another location or back home*" (p. 417).

Our focus was on British MNEs—i.e., firms located in a mature developed country—that had already established subsidiaries abroad. In order to identify those UK parent firms that had engaged in reshoring, we set the following criteria: (a) the parent firm had reduced employment in its foreign-based subsidiary by at least 10% and (b) the parent firm had experienced an increase in its employment at home. This definition of reshoring follows the previous literature. For example, Delis et al. (2019), Sena et al. (2022), Pennings and Sleuwaegen (2000) and Dewit et al. (2013) all adopt the 10% threshold. Following these papers and in particular Delis et al. (2019) and Sena et al. (2022), the variable Reshoring takes the value of 1 if employment at the subsidiary has been reduced by at least 10% and employment at the parent has increased, otherwise it takes the value of zero.

These conditions were intended to capture a shift in focus from subsidiary to parent via changes in employment, which we assumed to signal the likely repatriation of some activities. Here, we departed from the earlier definition given by Delis et al. (2019) and we considered subsidiaries located globally in order to identify whether subsidiary host country had an effect on the reshoring decisions of British MNEs. More specifically, we want to examine whether the activities of British MNE subsidiaries located in EU countries had been affected more than those of non-EU located ones.

3.2.2 Independent Variables

We utilized two main measures to capture the aspects of country-level protectionism over time for the UK. The first one is a variable called 'investment profile', which we sourced from the ICRG dataset. A country's investment profile, as defined and measured by the ICRG, refers to contract viability/expropriation (property rights), the ability to repatriate profits, and payment delays. As this variable did not vary between different UK parent firms for any given year, its direct inclusion would have led to a strong correlation with only time-varying controls—i.e., year fixed effects—thus complicating the estimation strategy. For this reason, we created a variable suited to measure the UK's *relative* investment profile as the ratio of the UK's ICRG investment profile (parent firm) over that of the subsidiary's host country. This variable thus fluctuated across UK parent firms and years, enabling us to statistically

identify its effects on reshoring while, at the same time, controlling for year fixed effects.

The second indicator that we used—'harmful interventions'—is compiled by the Global Trade Alert (GTA) consortium at the University of St. Gallen by Professor Simon Evenett's team. The GTA consortium documents any beneficial or penalizing changes in the relative treatment of foreign and domestic commercial interests. Each GTA database entry provides information about the direction of the change (beneficial or penalizing), the announced policy instrument—with the date of its announcement, and, where available, that of its implementation—and the sectors and products targeted by the statement. Finally, the database entry includes the potentially affected trading partners, which are identified based on official statistics.

3.2.3 Control Variables

In our empirical analysis, we used two specifications (1 A) and (1B) to address the research questions. In the first, we had, as control variables, relative parent subsidiary ones—i.e., relative K/L, relative wage, and relative sales—and a dummy variable that measured the parent's export activity. This approach, which was inspired by the earlier work of Delis et al. (2019), was used as a benchmark for our results. We augmented it with a finer graded specification that included, as controls, parent and subsidiary K/L, wages, and sales, plus the parent export dummy. This way, we were able to statistically determine whence the causal effects were originating—i.e., from the parent or the subsidiary.

The first variable we used as a control, relative K/L, was the capital to labor ratio of the parent over that of its subsidiary. This variable was intended to capture whether the parent was relatively capital- or labor-intensive. This also had implication for other characteristics of the parent—i.e., more capital-intensive firms are more likely to be more productive and innovative.

We also controlled for the relative average wage paid by each parent. Again, this was measured as the ratio of the parent's wages over those of its subsidiary. This variable captured a significant relative cost consideration between parents and subsidiaries, especially for those that might employ labor relatively more intensively. This variable was of special interest in conjunction with the previous one, as it enabled to indirectly test whether those British parents that had reshored were relatively highly productive and capital-intensive firms, with links to the reshoring and robot adoption literature (see Krenz et al. 2020).

Another control variable was the relative operating revenue (sales) of each parent. This variable was aimed at capturing a measure of how successful a parent was relative to its subsidiary. Hence, a higher value of operating revenue pointed toward a financially successful company that was facing a growing consumer base. A priori, it was not clear whether a higher operating revenue would lead to a higher likelihood of reshoring, as the relationship between the two measures was unclear. It was an empirical question, which was an additional reason to include it in our analysis.

Table 5 Variable definition

Variable name	Variable description
Dependent variables	
Reshoring	A parent firm that has reduced employment in its subsidiary abroad by at least 10% and has experienced an increase in its employment at home
Independent variables	
Relative investment profile	The investment profile of a country is defined and measured by the ICRG as the level of risk for international business, based on policy related to taxation, operations and repatriation restrictions, and labor costs over time. Here, we used the ratio of the parent's country investment profile over that of the subsidiary's country
Harmful trade policies	Harmful interventions against the free movement of goods and services. In particular, this variable measured harmful interventions against free trade from the point of view of the UK's as an importer.
Control variables for parent and subsidiary	
K/L	The ratio of fixed assets to employment
Wage	The average annual wage bill
Sales	Operating revenue (sales)
Export dummy	This is a dummy set to 1 if a firm had engaged in exporting activities and to 0 otherwise
Relative variables	
Relative K/L	Parent's K/L over subsidiary's K/L
Relative wage	Parent's wage over subsidiary's wage
Relative sales	Parent's sales over subsidiary's sales

Finally, we added an export dummy variable. This took a value of 1 if the parent had engaged in exporting activities, and of 0 otherwise.[3] Our thinking was that some MNEs might have engaged solely in FDI activities and not in exporting. Hence, the objective functions between these two different types of activities might not have been identical. This could have been of particular relevance for the distinction between manufacturing and services parents. We expected manufacturing MNEs, apart from owning subsidiaries abroad, to also export to foreign markets. This would not have been necessarily true for services MNEs. As a consequence, the latter would not have been particular affected by protectionist policies on the trading of goods at home or abroad, while the former would definitely have. This could have then incentivized the two types of firms in different directions in relation to reshoring. Table 5 shows a full description of each variable and its source, while Tables A1 and A2 provide information about the correlation between variables.

3.3 The Econometric Model

Our empirical strategy involved a panel estimation with a linear model using fixed effects. On the left-hand side, we had a dummy variable that took a value of 1 if

[3] Our results remain intact even if we add an export dummy for the subsidiaries.

a British firm had engaged in reshoring, and of 0 otherwise. On the right-hand side, we had all the control variables discussed in the previous section in logarithmic form. In addition, we added firm and year fixed effects in order to control for a number of potential endogeneity issues. In particular, the fixed effects incorporated were allowed to be correlated with any of the control variables. To a significant degree, this took cares of any potential endogeneity issues arising from the omission of unobserved time- and firm-specific characteristics that could be correlated with some of the right-hand side variables. This is a departure from Delis et al.'s (2019) recent paper on reshoring as, in their econometric analysis, they used a Correlated Random Effects estimation without year and firm fixed effects. In addition, we allowed the errors of UK parent firms to be correlated within each subsidiary's country. This was informed by the observation that the UK parents' decisions, in particular, could be correlated due to subsidiary-country-specific common or similar shocks. By clustering at a more aggregate level of analysis than the firm, we relaxed some of the rigid assumptions of the Fixed Effects estimation, as suggested in the applied econometrics literature.

First, we added year fixed effects in order to capture any shocks common to all firms for a particular year, like global macroeconomic events. Furthermore, we allowed for firm fixed effects.[4] That means that we allowed separately for parent-subsidiary-specific characteristics that do not change over time. These could be related to a firm's intrinsic qualities, like corporate culture or working environment, that are not expected to change significantly over the years.

We opted for two related specifications. In the first one, we measured all the control variables in relative terms, as the investment profile variable. In particular, we defined a relative variable x_{ijt} as the ratio of the UK parent's value over that of its subsidiary for a specific variable. That is $rel\_x_{ijt} = \frac{x_{it}}{x_{jt}}$ for any control variable x, where i indicates a British MNE, j a British MNE's subsidiary, and t the year, respectively. More specifically, our first econometric specification was:

$$\begin{aligned} Reshoring_{ijt} = {} & constant + \log(\text{rel\_}\frac{K}{L})_{ijt} + \log(rel\_wage)_{ijt} + \log(rel\_sales)_{ijt} \\ & + \log(rel\_investment\ profile)_{jt} + \log(harmful\ trade\ policies)_{jt} \\ & + firm\ effects + time\ effects + \varepsilon_{ijt} \end{aligned} \tag{1A}$$

This specification incorporates, in a parsimonious fashion, changes in both the parent and corresponding subsidiary, as the relative control variables contain any variability arising from both the parent and the subsidiary. Furthermore, although it does follow Delis et al. (2019) in including relative wages and relative sales per parent-subsidiary, it differs in a number of ways. First, it includes the relative K/L ratio, which, in our view, better captures the technology possessed by a firm. Second, it considers the relative investment profile, which varies in both the parent's and subsidiary's countries, while Delis et al. (2019) only considered either the variables pertaining to the parent's country (exchange rate) or to the subsidiary's one (hiring and

[4] Our panel dimension is defined as the parent-subsidiary dyad.

firing and property rights). Third, including the relative investment profile, which varies by parent and subsidiary, enables us to take into account the year fixed effects, while Delis et al. (2019) used a dummy variable for the 2009 global financial crisis. Fourth, it implements a standard Two Ways Fixed Effects estimation that enables the correlation of the firm- and year-fixed effects with all the independent variables, and also clustering at the subsidiary country. Finally, it draws upon a much richer and more recent dataset. Delis et al. (2019) only had data on a total of 130 UK MNEs, of which only 10 had engaged in reshoring; in our estimation sample, we were able to draw upon 909 UK MNEs and 105 instances of reshoring.

In our second specification, we again used a linear probability model that incorporated both parent and subsidiary variables. We viewed the reshoring phenomenon as the result of a decision made by a parent company based upon information originating from both itself and its subsidiary. Hence, in our approach, we attempted to disentangle the origin of the relevant action that had informed the parent company's decision; was it to be found in the parent or subsidiary level variables? In particular, British MNE *i* reshoring its activities from subsidiary *j* and at time period *t* ($Reshoring_{ijct}$) conditional on a set of covariates to examine hypotheses 1, 2 and 3 as follows:

$$\begin{aligned} Reshoring_{ijt} = constant + \log\left(\frac{K}{L}\right)_{it} + \log(wage)_{it} + \log(sales)_{it} + \log\left(\frac{K}{L}\right)_{jt} + \\ + \log(wage)_{jt} + \log(sales)_{jt} + \log(rel\_investment\ profile)_{jt} \\ + \log(harmful\ trade\ policies)_{jt} + firm\ effects + time\ effects + \varepsilon_{it} \end{aligned} \tag{1B}$$

where the *Reshoring* variable is a discrete one that takes a value of 1 if reshoring has taken place or 0 otherwise. Each right-hand side variable, in logarithmic format, includes the value for the parent and the subsidiary. In particular, *K/L* measures the Capital-Labor ratio for parent and subsidiary firms, *wage* is the average wage for each parent and subsidiary, and finally *sales* measures the operating revenue for each parent and its subsidiary. All variables are measured in thousands of British Pounds in current values.

In terms of country-level indicators, we used relative *investment profile*, which is a UK-related level of risk for international business, based on policy related to taxation, operations, and repatriation restrictions, and labor costs over time. The other country level variable, *harmful trade policies*, is intended to measure any harmful intervention that may hinder the free movement of goods and services. In particular, this variable measures any harmful interventions against free trade from the UK's point of view as an importer. It is a normalized variable that takes values between zero and one. The higher its value the more restricted a country's trade policy is becoming.

In the estimation, we allowed and corrected for heteroscedastic errors and clustered at several levels higher than the individual parent or subsidiary. We clustered errors at the subsidiary-country level. This enabled the errors to be correlated in a more aggregate way than at the firm level, which made our estimates more robust in

Table 6 Baseline model results

Dependent variable =1 for Reshoring; =0 otherwise	Model (1)	Model (2)	Model (3)	Model (4)
Relative Investment profile	0.0162**		0.0162**	0.0163**
	(0.006)		(0.0066)	(0.069)
Harmful practices		− 0.0009	− 0.0011	− 0.0022
		(0.0023)	(0.0028)	(0.0033)
Control variables				
Relative K/L	0.0005	0.0005	0.0005	0.0006
	(0.0013)	(0.0013)	(0.0013)	(0.013)
Relative Wage	− 0.0038**	− 0.0039**	− 0.0038**	− 0.0039**
	(0.0015)	(0.0015)	(0.0015)	(0.0015)
Relative Sales	0.0031	0.0032	0.0031	0.0031
	(0.0025)	(0.0025)	(0.0025)	(0.0025)
Parent Export dummy				− 0.004
				(0.0032)
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Clustered standard errors (at subsidiary country level)	Yes	Yes	Yes	Yes
R-squared	0.021	0.021	0.022	0.021
F-test	0.000	0.001	0.000	0.000
Hypothesis testing	Test Statistic		p-value	
Homoscedasticity	LR(3478)= − 7389.13		$Prob > x^2 : 1.00$	
No-autocorrelation	F(1, 1774) = 1.354		$Prob > F : 0.24$	
Observations	12,433	12,433	12,433	12,433

Standard errors in parenthesis. ***, **, * indicate significance at 1%, 5% and 10% levels, respectively.

relation to the possibility that part of the error terms might be correlated at the level described earlier.[5]

4 Findings and Discussions

In this section, we present our baseline and extended results for the full sample shown in Tables 6 and 7, respectively. Then in Tables 8, 9, 10 and 11, we show that our baseline and extended results are driven from subsidiaries in EU and not for elsewhere.

[5] We have tried to undertake Logit Fixed Effects estimation, but the sample shrinks substantially. This is because a fixed effect logit estimation takes into consideration only firms that switch from no reshoring to reshoring and vice versa. As a result, due the very small sample size we cannot obtain any statistically meaningful results.

Table 7 Extended model results

Dependent variable = 1 for Reshoring; =0 otherwise	Model (1)	Model (2)	Model (3)	Model (4)
Relative Investment profile	0.0152**		0.0152**	0.0153**
	(0.0068)		(0.0068)	(0.0071)
Harmful practices		− 0.0002	− 0.0004	− 0.0016
		(0.0022)	(0.0027)	(0.0031)
Control variables for Parent firm				
K/L	0.0006	0.0005	0.0006	0.0006
	(0.0009)	(0.0009)	(0.0009)	(0.0009)
Wage	− 0.0023	− 0.0022	− 0.0023	− 0.0023
	(0.0018)	(0.0018)	(0.018)	(0.0018)
Sales	0.0017	0.0016	0.0017	0.0017
	(0.0029)	(0.0029)	(0.0029)	(0.0029)
Parent Export dummy				− 0.0042
				(0.0032)
Control variables for Subsidiaries				
K/L	− 0.0011	− 0.0010	− 0.0011	0.0054
	(0.0035)	(0.0034)	(0.0035)	(0.0035)
Wage	0.0055*	0.0056*	0.0055*	0.0054*
	(0.0029)	(0.0028)	(0.0029)	(0.0029)
Sales	− 0.0065*	− 0.0067*	− 0.0065*	− 0.0064*
	(0.0034)	(0.034)	(0.0034)	(0.0034)
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Clustered standard errors (at subsidiary country level)	Yes	Yes	Yes	Yes
R-squared	0.024	0.024	0.024	0.024
F-test	0.000	0.000	0.000	0.000
Hypothesis testing	Test Statistic		p-value	
Homoscedasticity	LR(3478)= − 2792.08		$Prob > x^2$:1.00	
No-autocorrelation	F(1, 1774) = 1.349		$Prob > F$: 0.245	
Observations	12,433	12,433	12,433	12,433

Standard errors in parenthesis. ***, **, * indicate significance at 1%, 5% and 10% levels, respectively.

Table 6 shows that *relative investment profile* is statistically significant. The coefficient of the estimate is positive, which is consistent with Hypothesis 1—i.e., that an increase in the *relative investment profile* variable will lead to more inward FDI, some of which will likely involve reshoring (Witt, 2019; UNCTAD. 2020; Irwin, 2020). From Table 7, we see that the effect of *relative investment profile* is again highly statistically significant and the magnitude of its coefficient very similar. A 10% increase in *relative investment profile* leads to a 1.5% points increase in the probability of UK MNEs engaging in reshoring. The magnitude of this coefficient is the highest among all other control variables and, as such,

Table 8 Baseline model results – EU subsidiaries only

Dependent variable =1 for Reshoring; =0 otherwise	Model (1)	Model (2)	Model (3)	Model (4)
Relative Investment profile	0.0167**		0.0167**	0.0167**
	(0.0076)		(0.0076)	(0.0078)
Harmful practices		− 0.0012	− 0.0014	− 0.0027
		(0.0026)	(0.0031)	(0.0036)
Control variables				
Relative K/L	0.0006	0.0005	0.0006	0.0006
	(0.0014)	(0.0014)	(0.0014)	(0.0014)
Relative Wage	− 0.0034**	− 0.0034**	− 0.0034**	-0.0034**
	(0.0015)	(0.0014)	(0.0015)	(0.0015)
Relative Sales	0.0033	0.0033	0.0033	0.0033
	(0.0027)	(0.0027)	(0.0027)	(0.0027)
Parent Export dummy				-0.0047
				(0.0036)
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Clustered standard errors (at subsidiary country level)	Yes	Yes	Yes	Yes
R-squared	0.022	0.021	0.022	0.020
F-test	0.000	0.001	0.000	0.000
Observations	11,196	11,195	11,195	11,195

Standard errors in parenthesis. ***, **, * indicate significance at 1%, 5% and 10% levels, respectively.

it is not in line with the findings of Delis et al. (2019), who, for all OECD countries between 2005 and 2012, found that country-level variables do not have any impact on the reshoring decisions of parent firms. A potential explanation of this discrepancy could be related to the different time periods on which the two studies focused and also to the fact that Delis et al.'s (2019) period straddled the global financial crisis. Another explanation could be that our sample contained only British parent firms and, as this country-level variable is statistically significant, it might have captured the deteriorating investment proposition that the UK represented in the run up the Brexit referendum (Driffield & Karoglou, 2019) and, later, the populist and often anti-business rhetoric adopted by members of the British governing party. Certainly, the investment climate had been deteriorating from 2016 onwards.

The other country-level variable (*harmful practices*) was aimed at measuring any policy interventions affecting the free movement of goods and services, in particular in relation to free trade from UK's point of view as an importer. The coefficient of this estimate was found to be negative, as we posited in Hypothesis 2; but not statistically significant. Home-grown obstacles to free trade generally seem to have deterred British firms from repatriating part of their foreign activities (Lampel &

Table 9 Extended model results – EU subsidiaries only

Dependent variable = 1 for Reshoring; =0 otherwise	Model (1)	Model (2)	Model (3)	Model (4)
Relative Investment profile	0.0156*		0.0156*	0.0156*
	(0.0077)		(0.0077)	(0.0079)
Harmful practices		− 0.0005	− 0.0007	− 0.0020
		(0.0025)	(0.0030)	(0.0034)
Control variables for Parent firm				
K/L	0.00072	0.00068	0.00072	0.00078
	(0.0010)	(0.0009)	(0.0010)	(0.0010)
Wage	− 0.0024	− 0.0023	− 0.0024	− 0.0024
	(0.0019)	(0.0019)	(0.0019)	(0.0019)
Sales	0.0018	0.0018	0.0018	0.0019
	(0.0032)	(0.0032)	(0.0032)	(0.0032)
Parent Export dummy				− 0.0046
				(0.0036)
Control variables for Subsidiaries				
K/L	− 0.0005	− 0.0005	− 0.0005	− 0.0006
	(0.0036)	(0.0036)	(0.0037)	(0.0037)
Wage	0.0041*	0.0042*	0.0041*	0.0041
	(0.0024)	(0.0023)	(0.0024)	(0.0024)
Sales	− 0.0070*	− 0.0072*	− 0.0070*	− 0.0070*
	(0.0037)	(0.0037)	(0.0037)	(0.0037)
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Clustered standard errors (at subsidiary country level)	Yes	Yes	Yes	Yes
R-squared	0.025	0.025	0.025	0.024
F-test	0.000	0.000	0.000	0.000
Observations	11,196	11,195	11,195	11,195

Standard errors in parenthesis. ***, **, * indicate significance at 1%, 5% and 10% levels, respectively.

Giachetti, 2013); protectionism introduces uncertainty, and even firms that might immediately benefit from protectionist measures may fear retaliatory action. Again, even if protectionist measures favour an entire sector, there are some firms that may be much better equipped to benefit than others. The latter would include firms with existing mature domestic supply chains, or firms that are best equipped to capitalize on the decline of overseas competitors and who have most hope of securing market dominance. In turn this may encourage less advantaged competing firms to hedge their bets, by retaining geographically diversified activities.

Table 6 shows that the coefficient for one of the main variables used to test Hypothesis 3 (i.e., the K/L ratio) was found to be positive, but not statistically significant. This implies that British parent firms with an increasing K/L ratio relative to their subsidiaries are more likely to reshore some of their foreign activities.

Table 10 Baseline model results – non-EU subsidiaries only

Dependent variable =1 for Reshoring; =0 otherwise	Model (1)	Model (2)	Model (3)	Model (4)
Relative Investment profile	0.0121		0.0121	0.0121
	(0.0144)		(0.0144)	(0.0144)
Harmful practices		–	–	–
		–	–	–
Control variables				
Relative K/L	− 8.6e− 5	9.2e− 5	− 8.6e− 5	− 7.62e− 5
	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Relative Wage	− 0.0108	− 0.0108	− 0.0108	− 0.0108
	(0.0126)	(0.0126)	(0.0126)	(0.0127)
Relative Sales	0.0022	0.00227	0.0022	0.0022
	(0.0028)	(0.00287)	(0.0028)	(0.0028)
Parent Export dummy				− 0.0006
				(0.0012)
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Clustered standard errors (at subsidiary country level)	Yes	Yes	Yes	Yes
R-squared	0.002	0.001	0.002	0.002
F-test	–	–	–	–
Observations	1,237	1,237	1,237	1,237

Standard errors in parenthesis. ***, **, * indicate significance at 1%, 5% and 10% levels, respectively.

Although the economic magnitude of this effect is miniscule and not statistically significant, this change in the relative K/L ratio of a parent could point at many potentially conflicting explanations. It could be that changes in either the parent's or the subsidiary's K/L drive this effect. In Table 7, we see that this effect, albeit being not statistically significant, takes on opposing signs between parents and subsidiaries. For parents, an increase in the K/L ratio could lead to an increase in the likelihood of reshoring. This could be related to UK MNEs becoming more capital intensive and hence repatriating any labor-intensive stages of production back to the UK. At first glance, this might appear to be counterintuitive because, as a UK MNE becomes more capital-intensive, it would be assumed that it will continue to find it profitable to outsource any labor-intensive activities. However, recent evidence has shown that parents can become more capital-intensive and, at the same time, repatriate their labor-intensive stages of production by replacing cheap foreign labor with robots (see Krenz et al., 2021).

However, the effect for subsidiaries is negative; i.e., a more capital-intensive subsidiary will be less likely to be closed down and its activities moved back to the UK. This is because it is likely to be producing relatively high value-added goods for the British parent MNE and, although the capital-intensity between the parent and subsidiary remains quite different—with the parent being much more capital intensive—an increase in the subsidiary's capital intensity (investment in

Table 11 Extended model results – non-EU subsidiaries only

Dependent variable = 1 for Reshoring; =0 otherwise	Model (1)	Model (2)	Model (3)	Model (4)
Relative Investment profile	0.0419		0.0419	0.0417
	(0.0460)		(0.0460)	(0.0456)
Harmful practices		–	–	–
		–	–	–
Control variables for Parent firm				
K/L	0.000117	0.0000954	0.000117	0.000147
	(0.000286)	(0.000272)	(0.000286)	(0.000303)
Wage	0.000225	0.000281	0.000225	0.000261
	(0.00131)	(0.00133)	(0.00131)	(0.00132)
Sales	− 0.00634	− 0.00628	− 0.00634	− 0.00636
	(0.00790)	(0.00784)	(0.00790)	(0.00793)
Parent Export dummy				− 0.00158
				(0.00195)
Control variables for Subsidiaries				
K/L	− 0.00634	− 0.00628	− 0.00634	− 0.00636
	(0.00790)	(0.00784)	(0.00790)	(0.00793)
Wage	0.0362	0.0357	0.0362	0.0363
	(0.0384)	(0.0378)	(0.0384)	(0.0384)
Sales	0.00197	0.00159	0.00197	0.00193
	(0.00298)	(0.00314)	(0.00298)	(0.00296)
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Clustered standard errors (at subsidiary country level)	Yes	Yes	Yes	Yes
R-squared	0.002	0.002	0.002	0.002
F-test	–	–	–	–
Observations	1,237	1,237	1,237	1,237

Standard errors in parenthesis. ***, **, * indicate significance at 1%, 5% and 10% levels, respectively.

fixed capital) implies that its production has increased its added value. Hence, a foreign-based plant that produces a higher added value than in the past is more likely to continue being profitable and continue operating. At the same time, this could indicate that the parents are at the cutting edge of the technological frontier (Shih, 1996), whereby firms are increasing their K/L, with a beneficial effect on their productivity and wages.

This last prediction is something that we found in conjunction with the sign of the relative wage estimate. In particular, we found the coefficient of relative wages to be negative and statistically significant. Hence, from Table 6, we can see that a 10% increase in the parent firm's relative wage will reduce the likelihood of reshoring by 0.38% points. From Table 7, we see that the parent's wages do not affect the likelihood of reshoring, whereas the subsidiary's ones do. A 10% increase in the

wages paid by the subsidiary will lead to a 0.55% points increase in the likelihood of reshoring back to UK. This would confirm the central role played by wages in reshoring decisions, a role that may wane as firms become more capital intensive (Boffelli et al., 2020; Contractor et al., 2010; Pereira et al., 2019). However, this might not be necessarily true, as, although firms with a growing K/L ratio will tend to pay higher wages, whether the proportion of the total wage bill will increase in relation to overall costs depends on the firm's elasticity with employment, i.e., if wages rise faster than the decline in employment, the total wage bill could increase even for technologically advanced firms, hence reducing their likelihood of reshoring. Another explanation is evidenced in Table 7, where we see that parent firm wage changes do not affect its decision to reshore in any statistically significant way. Wages changes are statistically relevant for reshoring when they take place in subsidiaries. As subsidiary wages increase, foreign-based factories might become less profitable, hence incentivizing the parent firms to repatriate their activities and to upgrade their own technology (i.e., become more capital intensive).

The relative operating revenue (sales) variable for British parent firms was found to positively affect the likelihood of increasing reshoring, but to be not statistically significant Hence, from Table 6, we see that a 10% increase in relative sales will lead to reshoring increasing approximately by 0.31% points. This, together with the previous results, indicates that reshoring is more likely to be the result of firms trying to economize on the wages they pay (Barbieri et al., 2018; Stentoft et al., 2016; Wiesmannetal, 2017). From Table 7, it is again apparent that any changes in sales statistically (at the 10% level of significance) affect reshoring decisions when they occur in subsidiaries and not in the parents. In particular, a 10% increase in subsidiary sales results in a 0.65% points decline in the likelihood of reshoring.

Finally, Table 6 clearly shows that the exporting status of a British parent firm does not have any statistically significant effect on its decision to repatriate part of its overseas business activities. This may be because those firms that did engage in reshoring were not part of European or global value chains that involved the repeated exporting and importing of intermediate goods before producing a final product. All the above depicts a profile of the reshoring British parent MNEs as not being the most internationalized among their peers (Barbieri et al., 2018; Stentoft et al., 2016; Wiesmannetal, 2017).

Furthermore, we isolated a subsample of EU-only subsidiaries and estimated Equations (1 A) and (1B) on it. The results—which are presented in Tables 8 and 9, respectively—clearly show that the main results we obtained from the whole sample were mostly driven from UK MNEs repatriating their economic activities from EU countries. In Tables 8 and 9, we obtained results that were qualitatively similar to our main baseline (Table 6) and extended (Table 7) ones. The only difference was that statistical significance waned away for all variables involved, probably as a result of the smaller sample size. Finally, we repeated the same exercise for a subsample of non-EU subsidiaries. That is, we once more estimated specifications (1 A) and (1B) for the much smaller subsample (1,237 observations), that contained only subsidiaries located outside the EU. The results, presented in Tables 10 and 11, confirmed the findings discussed above. Although, it is not explicitly tested, there is

a strong indication that discussion about Brexit and the associated uncertainty had contributed to this, since UK MNEs with EU subsidiaries would have faced a relatively much higher increase in the cost of operating subsidiaries. Hence, we can consider Hypothesis 4 to be confirmed.

5 Robustness Checks

We conducted a number of robustness checks in order to ensure that our results remain intact and do not just present spurious relationships. In particular, (a) we excluded relative K/L in order to check for potential issues arising from correlation between this variable and relative wages (Tables A3 and A4), (b) we constructed Variable Inflation Factors for our two main specifications as presented in Tables A5 and A6 in the Online Appendix, (c) had some specifications with a combination of parent industry fixed effects and subsidiary fixed effects in order to control for parent (subsidiary) industry time invariant effects (Tables A7 and A8), (d) specifications that contained subsidiary exporting dummy in attempt to indirectly take into consideration the possibility that both the parent and the subsidiary are part of an international value chain (Tables A9 and A10) and (e) tested explicitly for the presence of heteroscedasticity and autocorrelation in the data. Having conducted all these robustness checks, the results strongly indicate that our findings remain intact. Hence, we are confident that our main findings would withstand any further scrutiny and tests.

6 Conclusion

This paper contributes to the debate in the literature on de-globalization by focusing on the impact that protectionist measures have on reshoring activity of UK MNEs. Our conceptual framework and empirical results add to our understanding of how the reshoring activity of UK MNEs is influenced based on protectionist and institutional measures, both at home and in host countries. This, coupled with the globally increasing trend towards protectionism, enables us to add a more nuanced set of arguments, from an institutional perspective to the study of how and why UK MNE's reshoring activity is affected.

In contrast to the previous literature and, in particular Delis et al. (2019), we have uncovered that the country-level determinant of '*relative investment profile'* has the strongest effect on reshoring. This means that a better '*relative investment profile'* of UK parent firms will increase the chances of reshoring. The second result is that we find '*relative parent wages'* to be also important, albeit having a much weaker impact on reshoring. More specifically, we find that an increase in relative parent wages will reduce the likelihood of reshoring. Our third result is that, when we allow for the inclusion of both parent and subsidiary variables, the relative parent wage effect is driven by changes to subsidiary wages and importantly not by parent wages (shown in Table 7). In particular, any increase in subsidiary wages increases the chances of reshoring. This is consistent with the idea that first offshoring takes place

in order to reduce labor costs and, should this advantage wane, reshoring becomes much more attractive. We also find that subsidiary sales are statistically significant at the 10% level, which means that any increase in subsidiary sales will reduce the chances of reshoring (i.e., subsidiary sales are a measure of success for the parent firm). It is important to emphasize that these main results seem to be driven from reshoring that takes place from EU countries back to the UK, rather than outside of the EU. We find our results to remain intact and robust when we 1) exclude the K/L ratio from both specifications; 2) adding parent and subsidiary industry fixed effects; and 3) adding a subsidiary export dummy.

Our study contributes to the literature on MNE reshoring in several distinct ways. The first contribution is based on incorporating of the effects of the investment uncertainty in the run up to Brexit in explaining the likelihood of reshoring by UK MNEs. This context-specific contribution provides insights into the trends whereby MNEs had coped with this uncertainty and their portfolio of FDI projects. Our second contribution to the literature lies in a conceptually derived model in which organizational, political, and country-level determinants play important roles in shedding light on how UK MNEs had viewed the attractiveness of their home country vis-à-vis their host ones. The third contribution lies in our empirical set up and modelling that is suited to isolate the multi-dimensional parent-subsidiary determinants of the reshoring decision making process. Finally, as outlined below, we sought to extend past theories of offshoring to better take into account the recent reshoring trend.

6.1 Implications for theory

At the theoretical level, it is evident that, although global trade may be slowing and/or becoming more volatile—and reshoring is a notable phenomenon—much of the logic that had driven the earlier hyper-globalization still prevails. This would include the essential fluidity and mobility of capital, sensitivity to restraints on the same, and the desire to reduce the relative value accrued to labor. If the rise of GVCs allowed firms to separate lower from higher value-added activities in the production cycle (Ryan et al., 2020), then it might be argued that reshoring may be associated with the relative balance shifting to the latter. However, given how sensitive reshoring firms are to relatively wage cost advantages, this would suggest that, in the case of the UK, this tendency is not in play. From a Transaction Costs Economics perspective (Teece, 1986), it seems that that the kind of firms that favour more instrumental market-based approaches to contracting (cost cutting in wages, low capital intensity, reliance on weak stakeholder rights) are more prone to reshore than ones that favour internal ones (more investment in workers and people).

6.2 Implications for managers

Our results suggest that *relative investment profile* is the variable with the highest explanatory power for reshoring decisions; in other words, as suggested by theories of hyper-globalization—and, indeed, more optimistic, neo-liberal accounts of globalization—property rights and the ability to rapidly move capital around are what really matters, at least in terms of the relative attractiveness of the UK (cf. Urry, 2014). Furthermore, when we allowed the interplay between parent-subsidiary relationship to be combined (Tables 6 and 8, and 10), only *relative wages* appeared to affect reshoring in any statistically significant way besides *relative investment profile*. However, when we allowed for a more disaggregate estimation (Tables 7 and 9, and 11), we found that this effect appears largely driven by changes in the wages of subsidiaries (together with subsidiary-level sales changes). In other words, to the best of our knowledge, our study is the first to provide statistical evidence that reshoring decisions—even when made by UK parent firms—consider the relative low-cost advantages of subsidiaries.

The UK has often been seen as one characterized by a focus on excessive short termism, and a lack of investment in plant and skills (Hassel & Palier, 2021). The findings of the study would suggest that those firms that are most sensitive to wage costs and light regulation are most likely to reshore; capital intensive firms less so. This might suggest that a tendency towards reshoring will contribute to further accentuate the UK's features as those firm that are drawn to its features and relative advantages move back home, and those that find the converse so will retain operations abroad and potentially increase them. It could be argued that this trend may constrain, rather than increase managerial discretionary power; managers may have less room to move towards higher value-added production paradigms.

6.3 Implications for policy

Our results that firms are more likely to reshore when the relative wage advantages of a subsidiary decreases means that this tendency is likely to be accelerated by the decline of the pound. Again, capital intensive subsidiaries seemed if anything less vulnerable, despite the relative amount of capital tied up in them, as well as, more predictably, those with better sales. This would suggest that those firms that engage in reshoring fit a certain profile: average or less capital intensive, more sensitive to wage costs abroad, and those that are more centered on the release of short-term shareholder value. Hence, it might be argued that whilst the volume of reshoring to the UK may have increased, the quality of reshoring might be questioned. This might seem that the bonfire of regulations and workers' rights that may be brought about by the envisage (2022) repeal of EU aligned laws may indeed, encourage further reshoring, but this will, if anything make the UK's shift to a high wage high skill economy more challenging. As our results are largely swayed by data on reshoring from the EU (the results from other parts of the world were less clear cut),

this would suggest that firms engaged in higher value added, more capital-intensive production seem much less inclined to exit the Union.

Moreover, in its own right Brexit does not seem to have led to an increased tendency to reshore: promises of future deregulation and reduced EU competition appears to be outweighed by uncertainty, and the prospect that greater protectionism at home will be balanced out by greater difficulties in reaching markets abroad.

6.4 Limitations and future avenues for research

In terms of limitations, we acknowledge that our sample period only went up to 2017. Extending it to more recent years would potentially make the data richer and reflect the most recent developments of Brexit. This points at several directions for meaningful future research suited to the further exploration of reshoring decisions.

One area that requires further insights is a finer grained analysis exploiting more disaggregated data and variables on the entire re-organization of the global value chain, including any non-equity based relationships that may have been severed in foreign markets due to Brexit. Future work that encompasses more disaggregated data as well as the inclusion of the post-Brexit period would allow researchers to extend the analysis to how the quality of the supply chain ecosystem and the level of strategic alliance partnerships in the UK may help or hinder the reshoring decision for individual MNEs.

From a TCE perspective, firms seem drawn to reshoring in order to maximize firm autonomy and to cut costs. However, as critics of TCE note (Allen, 2004; Braun & Deeg, 2020), this is potentially not the only game in town; our study highlighted that MNEs more tolerant of higher wages and more capital intensive were less likely to move home. A fertile area for future enquiry would be a closer examination of the characteristics of the firms that chose to retain operations abroad, and potentially, whether they would be more prone to engage in the polar opposite of reshoring: moving their headquarters abroad.

Last, but not least, there is the important question of how MNE performance develops over time once the decision of reshoring some activities is made. This certainly would depend on the above areas of research, that include the sub-regional motivations, non-equity based relationships and overall technological/know-how sophistication of the reshoring project coming back to the UK. Isolating the various effects of these on performance indicators, such as profits versus productivity measures, would allow researchers to offer new insights to the literature, managers as well as policymakers on firm performance. These are fascinating conceptual and empirical questions that will hopefully inspire researchers to seek nuanced explanations for the post-Brexit impacts on MNEs and their evolving competitive environments both at home and abroad.

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References

Albertoni, F., Elia, S., Massini, S., & Piscitello, L. (2017). The reshoring of business services: Reaction to failure or persistent strategy? *Journal of World Business*, *52*, 417–430.

Allen, M. (2004). The varieties of capitalism paradigm: not enough variety? *Socio-Economic*.

AMPSC Report (2012). Report to the President on Capturing Domestic Comparative Advantage in Advanced Manufacturing. President's Council of Advisors on Science and Technology (2012).

Bailey, D., & De Propris, L. (2014). Manufacturing reshoring and its limits: the UK automotive.

Bailey, D., & De Propris, L. (2014a). Manufacturing reshoring and its limits: The UK automotive case. *Cambridge Journal of Regions Economy and Society*, *7*(3), 379–395.

Bailey, D., & De Propris, L. (2017). *What does Brexit mean for UK automotive and industrial policy? In the political economy of Brexit*. Agenda Publishing.

Bain, P., & Taylor, P. (2008). No passage to India? Initial responses of UK trade unions to call centre offshoring. *Industrial Relations Journal*, *39*(1), 5–23.

Baldwin, R., Ito, T., & Sato, H. (2014). *The smile curve: Evolving sources of Value added in Manufacturing*. IDE-JETRO. Joint Research Program Series.

Barbieri, P., Ciabuschi, F., Fratocchi, L., & Vignoli, M. (2018). What do we know about manufacturing reshoring? *Journal of Global Operations and Strategic Sourcing*, *11*(1), 79–122.

Barbieri, P., Boffelli, A., Elia, S., Fratocchi, L., Kalchschmidt, M., & Samson, D. (2020). What can we learn about reshoring after Covid-19? *Operations Management Research*, *13*(3), 131–136.

Barnette, B., Carroll-Melzer, C., & Rutström, K. (2020). *The Reshoring Phenomenon*. Jonkoping University.

Boffelli, A., Golini, R., Orzes, G., & Dotti, S. (2020). Open the box: A behavioural perspective on the reshoring decision-making and implementation process. *Journal of Purchasing and Supply Management*, *26*(3), 100623.

Boston Consulting Group (2013). Behind the American export surge. Available at: http://www.themadeinamericamovement.com/wpcontent/uploads/2015/02/Behind_the_American_Export_Surge_Aug_2013_tcm80-141739.

Branicki, L., Sullivan-Taylor, B., & Brammer, S. (2021). *Towards crisis protection (ism)? COVID-19 and selective de-globalization*. Critical Perspectives on International Business.

Braun, B., & Deeg, R. (2020). *Strong firms, weak banks*. The financial consequences of.

Buckley, P. J. (2011). International integration and coordination in the global factory. *Management International Review*, *51*(2), 269.

Buckley, P., & Casson, M. (2009). The internalisation theory of the multinational enterprise: A review of the progress of a research agenda after 30 years. *Journal of International Business Studies*, *40*(9), 1563–1580.

Buckley, P. J., & Hashai, N. (2020). Skepticism toward globalization, technological knowledge flows, and the emergence of a new global system. *Global Strategy Journal*, *10*(1), 94–122.

Butzbach, O., Fuller, D. B., & Schnyder, G. (2020). Manufacturing discontent: National institutions, multinational firm strategies, and anti-globalization backlash in advanced economies. *Global Strategy Journal*, *10*(1), 67–93.

Chiles, T. H., & McMackin, J. F. (1996). Integrating variable risk preferences, trust, and transaction cost economics. *Academy of Management Review*, *21*(1), 73–99.

Clougherty, J. A., & Zhang, N. (2021). Foreign investor reactions to risk and uncertainty in antitrust: US merger policy investigations and the deterrence of foreign acquirer presence. *Journal of International Business Studies*, *52*(3), 454–478.

Contractor, F. J. (2021). The world economy will need even more globalization in the post-pandemic 2021 decade. *Journal of International Business Studies*, 1–16.
Contractor, F. J., Kumar, V., Kundu, S. K., & Pedersen, T. (2010). Reconceptualizing the firm in a world of outsourcing and offshoring: The organizational and geographical relocation of high-value company functions. *Journal of Management Studies*, *47*(8), 1417–1433.
Cuervo-Cazurra, A., Doz, Y., & Gaur, A. (2020). Skepticism of globalization and global strategy: Increasing regulations and countervailing strategies. *Global Strategy Journal*, *10*(1).
De Ville, F. (2018). Domestic institutions and global value chains: Offshoring in Germany's Core Industrial Sectors. *Global Policy*, *9*, 12–20.
Delios, A., Perchthold, G., & Capri, A. (2021). Cohesion, COVID-19 and contemporary challenges to globalization. *Journal of World Business*, *56*(3), 101197.
Delis, A., Driffield, N., & Temouri, Y. (2019). The global recession and the shift to reshoring: Myth or reality? *Journal of Business Research*, *103*, 632–643.
Devinney, T. M., & Hartwell, C. A. (2020). Varieties of populism. *Global Strategy Journal*, *10*(1), 32–66.
Dewit, G., Leahy, D., & Montagna, C. (2013). Employment protection, flexibility and firms' strategic location decisions under uncertainty. *Economica*, *80*(319), 441–474.
Doh, J. P. (2005). Offshore outsourcing: Implications for international business and strategic management theory and practice. *Journal of Management Studies*, *42*(3), 695–704.
Driffield, N., & Karoglou, M. (2019). Brexit and foreign investment in the UK. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, *182*(2), 559–582.
Driffield, N., Mickiewicz, T., & Temouri, Y. (2016). Ownership control of Foreign Affiliates? A Property Rights Theory Perspective. *Journal of World Business*, *51*(6), 965–976.
Drori, G. S. (2008). Institutionalism and globalization studies. In R. Greenwood, C. Oliver, T. B. Lawrence, & R. E. Meyer (Eds.), *The sage handbook of organizational institutionalism* (pp. 449–472). Sage.
Drukker, D. M. (2003). Testing for serial correlation in linear panel-data models. *Stata Journal*, *3*, 168–177.
Dunning, J. H. (1998). Location and the multinational enterprise: A neglected factor? *Journal of International Business Studies*, *29*(1), 45–66.
Ellram, L. M., Tate, W. L., & Petersen, K. J. (2013). Offshoring and reshoring: An update on the manufacturing location decision. *Journal of Supply Chain Management*, *49*(2), 14–22.
Enderwick, P. (2011). Understanding the rise of global protectionism. *Thunderbird International Business Review*, *53*(3), 325–336.
Enderwick, P., & Buckley, P. J. (2020). Rising regionalization: Will the post-COVID-19 world see a retreat from globalization? *Transnational Corporations Journal*, *27*(2).
Evenett, S. J. (2019). Protectionism, state discrimination, and international business since the onset of the Global Financial Crisis. *Journal of International Business Policy*, *2*(1), 9–36.
Federal Ministry of Education and Research (BMBF) (2015). Digital Economy and Society: Industry 4.0. Available at: https://www.bmbf.de/de/zukunftsprojekt-industrie-4-0-848.html.
Findlay, C., & Hoekman, B. (2021). Value chain approaches to reducing policy spillovers on international business. *Journal of International Business Policy*, *4*(3), 390–409.
Foerstl, K., Kirchoff, J. F., & Bals, L. (2016). Reshoring and insourcing: Drivers and future research directions. *International Journal of Physical Distribution & Logistics Management*, *46*(5), 492–515.
Fratocchi, L., Ancarani, A., Barbieri, P., DiMauro, C., Nassimbeni, G., Sartor, M., Vignoli, M., et al. (2015). Manufacturing back-reshoring as a nonlinear internationalization process. *The Future of Global Organizing*, *10*, 365–403.
Gereffi, G., & Fernandez-Stark, K. (2016). Global Value Chain Analysis: A Primer. Durham, North Carolina. http://www.cggc.duke.edu/pdfs/Duke_CGGC_Global_Value_Chain_GVC_Analysis_Primer_2nd_Ed_2016.pdf.
Germany's export-led growth model. *German Politics*, 29(3), 358–381.
Ghauri, P., Strange, R., & Cooke, F. L. (2021). Research on international business: The new realities. *International Business Review*, *30*(2), 101794.
GOV.UK. (2014). New government support to encourage manufacturing production back to the UK. Available at:https://www.gov.uk/government/news/new-government-support-to-encourage-manufacturing-production-back-to-the-uk (2014).
Grandinetti, R., & Tabacco, R. (2015). Are turn to spatial proximity: Combining global suppliers with local subcontractors. *International Journal of Globalization and Small Business*, *7*(2), 139–161.

Grimalda, G., Trannoy, A., Filgueira, F., & Moene, K. O. (2020). Egalitarian redistribution in the era of hyper-globalization. *Review of Social Economy*, *78*(2), 151–184.

Handley, S. M., & Benton, W. C. Jr. (2013). The influence of task- and location-specific complexity on the control and coordination costs in global outsourcing relationships. *Journal of Operations Management*, *31*(3), 109–128.

Hassel, A., & Palier, B. (Eds.). (2021). *Growth and Welfare in Advanced Capitalist Economies: How have growth regimes evolved?* Oxford University Press.

Hätönen, J., & Eriksson, T. (2009). 30 + years of research and practice of outsourcing–exploring the past and anticipating the future. *Journal of International Management*, *15*(2), 142–155.

Head, K., & Mayer, T. (2018). Brands in motion: how frictions shape multinational production. CEP Discussion Papers (CEPDP1551).

Hernández, V., & Pedersen, T. (2017). Global value chain configuration: A review and research agenda. *Business Research Quarterly*, *20*(2), 137–150.

Hitt, M. A., Arregle, J. L., & Holmes, R. M. Jr. (2020). Strategic management theory in a post-pandemic and non-ergodic world. *Journal of Management Studies*, *58*(1), 259–264.

Irwin, D. A. (2020). *The Pandemic adds Momentum to the Deglobalization Trend*. Peterson Institute for International Economics. April 23.

Jones, C., & Temouri, Y. (2016). The determinants of tax haven FDI. *Journal of World Business*, *51*(2), 237–250.

Kano, L., Tsang, E. W., & Yeung, H. W. C. (2020). Global value chains: A review of the multi-disciplinary literature. *Journal of International Business Studies*, *51*(4), 577–622.

Krenz, A., Prettner, K., & Strulik, H. (2021). Robots, reshoring, and the lot of low-skilled workers. *European Economic Review*, *136*, 103744.

Lampel, J., & Giachetti, C. (2013). International diversification of manufacturing operations: Performance implications and moderating forces. *Journal of Operations Management*, *31*(4), 213–227.

Laraqui, S., & Jarreau, B. J. (2019). Applying theory to Understand how multinational firms address Brexit. *The changing strategies of International Business* (pp. 27–48). Palgrave Macmillan.

Maertz, C. P. Jr., Wiley, J. W., LeRouge, C., & Campion, M. A. (2010). Downsizing effects on survivors: Layoffs, offshoring, and outsourcing. *Industrial Relations: A Journal of Economy and Society*, *49*(2), 275–285.

McIvor, R. (2009). How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. *Journal of Operations Management*, *27*(1), 45–63.

McIvor, R., & Bals, L. (2021). A multi-theory framework for understanding the reshoring decision. *International Business Review*, p.101827.

Milner, H. V. (2021). *Resisting protectionism: Global industries and the politics of international trade*. Princeton University Press.

Mudambi, R., Li, L., Ma, X., Makino, S., Qian, G., & Boschma, R. (2018). Zoom in, zoom out: Geographic scale and multinational activity. *Journal of International Business*, *49*(8), 929–941.

Oshri, I., Sidhu, J. S., & Kotlarsky, J. (2019). East, west, would home really be best? On dissatisfaction with offshore-outsourcing and firms' inclination to backsource. *Journal of Business Research*, *103*, 644–653.

Pegoraro, D., Propris, L. D., & Chidlow, A. (2020). De-globalisation, value chains and reshoring. *Industry*, *4*, 152–175.

Pegoraro, D., De Propris, L., & Chidlow, A. (2022). Regional factors enabling manufacturing reshoring strategies: A case study perspective. *Journal of International Business Policy*, *5*(1), 112–133.

Pennings, E., & Sleuwaegen, L. (2000). International relocation: Firm and industry determinants. *Economics Letters*, *67*(2), 179–186.

Pereira, V. (2015). In A. Malik (Ed.), *Human capital in the indian IT / BPO industry*. Palgrave Macmillan. ISBN 9781137481504.

Pereira, V., & Temouri, Y. (2018). Impact of institutions on emerging european high-growth firms. *Management Decision*, *56*(1), 175–187.

Pereira, V., Munjal, S., & Ishizaka, A. (2019). Outsourcing and offshoring decision making and its implications for Businesses- A synthesis of research pursuing five pertinent questions. *Journal of Business Research*, *103*, 348–355.

Petricevic, O., & Teece, D. J. (2019). The structural reshaping of globalization: Implications for strategic sectors, profiting from innovation, and the multinational enterprise. *Journal of International Business Studies*, *50*(9), 1487–1512.

Poppo, L., & Zenger, T. (1998). Testing alternative theories of the firm: Transaction cost, knowledge-based, and measurement explanations for make-or-buy decisions in information services. *Strategic Management Journal*, *19*(9), 853–877.
Quaglietti, L. (2018). Implications of rising Trade tensions for the Global Economy. *ECB Economic Bulletin*, *3*, 21–25.
Review, 2(1), 87–108.
Rodrik, D. (2019). Globalization's wrong turn, and how it Hurt America. *Foreign Affairs*, *98*(4), 26–33.
Ryan, P., Buciuni, G., Giblin, M., & Andersson, U. (2020). Subsidiary upgrading and global value chain governance in the multinational enterprise. *Global Strategy Journal*, *10*(3), 496–519.
Schneider, C., Bremen, P., Schönsleben, P., & Alard, R. (2013). Transaction cost economics in global sourcing: Assessing regional differences and implications for performance. *International Journal of Production Economics*, *141*(1), 243–254.
Sena, V., Kanungo, R. P., Ozdemir, S., Yannopoulou, N., & Patel, P. (2022). Are reshoring decisions influenced by External Stakeholders and Country-Level Environmental Regulation? *British Journal of Management*.
Serrano, R. M., Ramírez, M. R. G., & Gascó, J. L. G. (2018). Should we make or buy? An update and review. *European Research on Management and Business Economics*, *24*(3), 137–148.
Shih, S. (1996). *Me-too is not my style: Challenge difficulties, breakthrough bottlenecks, create values*. The Acer Foundation.
Steele, C. W., Toubiana, M., & Greenwood, R. (2019). Why worry? Celebrating and reformulating integrative institutionalism. In P. Haak, J. Sieweke, & L. Wessel (Eds.), *Microfoundations of institutions*. Emerald Publishing Limited.
Stentoft, J., Olhager, J., Heikkilä, J., & Thoms, L. (2016). Manufacturing backshoring: A systematic literature review. *Operations Management Research*, *9*(3–4), 53–61.
Sukar, A., & Ahmed, S. (2019). Rise of Trade Protectionism: The case of US-Sino Trade War. *Transnational Corporations Review*, *11*(4), 279–289.
Tate, W. L. (2014). Offshoring and reshoring: U.S. insights and research challenges. *Journal of Purchasing Supply Management*, *20*(1), 66–68.
Teece, D. J. (1986). Transactions cost economics and the multinational enterprise an Assessment. *Journal of Economic Behavior & Organization*, *7*(1), 21–45.
The Reshoring Initiative (2016). Company cases (available at Reshoring Library at reshorenow.org).
UNCTAD (2020). *World Investment Report 2020: International Production beyond the pandemic*. United Nations Conference on Trade and Development.
Urry, J. (2014). *Offshoring*. John Wiley & Sons.
Wan, L., Orzes, G., Sartor, M., & Nassimbeni, G. (2019). Reshoring: Does home country matter? *Journal of Purchasing and Supply Management*, *25*(4), 100551.
Weng, D. H., & Peng, M. W. (2018). Home bitter home: How labor protection influences firm offshoring. *Journal of World Business*, *53*(5), 632–640.
Wernicke, S. F. (2020). *Investment screening: The return of Protectionism? A business perspective, in Yearbook of Socio-Economic Constitutions*. Springer.
Wiesmann, B., Snoei, J. R., Hilletofth, P., & Eriksson, D. (2017). Drivers and barriers to reshoring: A literature review on offshoring in reverse. *European Business Review*, *29*(1), 15–42.
Williamson, O. (1998). Transaction cost economics: How it works; where it is headed. *De Economist*, *146*(1), 23–58.
Williamson, O. E. (2008). Outsourcing: Transaction cost economics and supply chain management. *Journal of Supply Chain Management*, *44*(2), 5–16.
Witt, M. A. (2019). De-globalization: Theories, predictions, and Opportunities for International Business Research. *Journal of International Business Studies*, *50*(7), 1053–1077.
Witt, M. A., Li, P. P., Välikangas, L., & Lewin, A. Y. (2021). De-globalization and decoupling: Game changing consequences? *Management and Organization Review*, *17*(1), 6–15.
Wooldridge, J. M. (2010). *Econometric Analysis of Cross Section and Panel Data*. MIT Press.
World Bank. (2021). *World Development indicators*. World Bank.
Żuk, P., & Żuk, P. (2018). Offshoring, labour migration and neo-liberalisation: Nationalist responses and alternatives in Eastern Europe. *The Economic and Labour Relations Review*, *29*(1), 97–117.