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Revisiting Foreign Direct Investment in Peripheral Regions

2.1 INTRODUCTION

The previous chapter focused on the development effects of FDI in less developed countries. This chapter continues to focus on the development effects of FDI but shifts its attention to the regional (subnational) scale and to peripheral less developed (henceforth peripheral) regions in more developed countries by evaluating the long-term regional development effects of FDI in peripheral regions and reviewing the main approaches to FDI in peripheral regions that have been developed and applied by economic geographers. Peripheral regions are understood as disadvantaged areas that, compared to more developed core regions, are typified by lower levels of income, a less advanced and less diversified economy, higher unemployment levels, lower levels of innovation, less educated labor and other features identified in Table 2.1. FDI is only one of many transnational business strategies employed by TNCs, such as outsourcing, offshoring, franchising, strategic alliances, cooperative agreements and, more recently, various asset-light strategies related to the growth of the digital economy (e.g., Massini and Miozzo, 2012; Dicken, 2015; UNCTAD, 2017; Casella and Formenti, 2018; Martínez-Noya and Narula, 2018; Alon et al., 2021). Although these strategies are beyond the scope of this chapter, they have allowed TNCs to progressively "fine slice the value chain" (Linares-Navarro et al., 2014), leading to an ever-finer division of labor, more complex location decisions and regional development implications in peripheral regions (Phelps and Wood, 2018a). Given the dramatic changes in the world economy that are affecting FDI flows with significant development implications for peripheral regions (e.g., UNCTAD, 2020; 2023; Zhan, 2021), it is an opportune time to take stock and highlight the continuing importance of research on the regional development effects of FDI by geographers since FDI strongly contributes to uneven development at different geographic scales. A better understanding of the regional development effects of FDI will improve our overall understanding of FDI at different geographic scales.

TABLE 2.1 *FDI in core and peripheral regions*

	Core regions	**Peripheral regions**
Factors attracting FDI	Large actual or potential markets, higher disposable income Skilled and more educated labor force Innovation capabilities More diversified and technologically advanced economy Competent local suppliers and potential business partners High quality infrastructure Lower transportation costs because of market proximity Better quality institutions (institutional thickness)	Labor surplus Natural resources Lower operating costs based on cheaper factors of production (wages, real estate, land, commercial rents, local taxes) Regional investment incentives lowering start-up sunk costs Often geographic proximity to large core-based markets
Factors deterring FDI	More expensive factors of production (wages, real estate, land, commercial rents, local taxes) Smaller labor surplus, increased labor market competition, potential labor shortages	Less educated labor force and lower labor skills Smaller actual or potential markets, lower disposable incomes Less diversified and technologically less advanced economy Lower quality infrastructure Higher transportation costs Fewer competent local suppliers and potential business partners Low innovation capabilities Weaker and less capable local institutions
Predominant type of FDI	Horizontal (market-seeking)	Vertical (efficiency- and resource-seeking)
FDI linkages	Higher number and intensity of linkages A greater likelihood of developmental linkages More likely positive effects on domestic firms through linkages	Lower number and intensity of linkages, truncation A greater likelihood of dependent and detrimental linkages Less likely positive effects on domestic firms through linkages
FDI spillovers	A greater likelihood of vertical spillovers Higher absorptive capacity of domestic firms	A lower likelihood of vertical spillovers Low absorptive capacity of domestic firms

Source: author.

This chapter identifies different mechanisms of FDI in core and peripheral regions that lead to a greater concentration of horizontal FDI in core regions and vertical FDI in peripheral regions and, consequently, to different regional development outcomes of FDI in core and peripheral regions. It argues three main points. First, FDI has greater potential to benefit core regions than peripheral regions in the long run. Second, despite different conceptual approaches to FDI in economic geography, the empirical research points to similar conclusions about the long-term effects of FDI in peripheral regions. Third, geographers need to maintain a strong interest in examining the effects of FDI in peripheral regions in the overall context of uneven development and a rapidly changing world economy.

The chapter starts with a discussion of the regional development effects of FDI from the perspective of economic geography by focusing on FDI linkages and spillovers in peripheral regions. Second, it evaluates important approaches used to analyze the regional development effects of FDI in peripheral regions that have been developed in economic geography, namely the branch plant economy and truncation, new international division of labor and spatial divisions of labor, new regionalism, and global production networks (GPNs) approaches. Finally, it presents a brief research agenda for the research of FDI in peripheral regions in economic geography, which highlights its continuing importance for the understanding of contemporary uneven development.

2.2 Economic Geography and Regional Development Effects of FDI

Compared to research on FDI and international activities of TNCs conducted in economics, international business and other disciplines, economic geographers have predominantly focused on the regional development effects of FDI in the context of uneven economic development and spatial divisions of labor. When considering the long-term regional development effects of FDI in peripheral regions, it is important to keep in mind two points. First, FDI is part of the profit-seeking strategies of firms in the capitalist economy and, as such, it is primarily sought for the benefit of investing firms and not for the benefit of host regions. Second, the direct immediate and indirect long-term effects of FDI in host regions can be both positive and negative (Pavlínek, 2004; Spencer, 2008; Akyüz, 2017). This is because the effects of FDI depend on many different factors, such as the size of the investment and its type (e.g., market-, efficiency-, resource-, strategic asset-seeking FDI), the type of industry (e.g., capital-intensive versus labor-intensive), the nature of operations (e.g., manual assembly versus automated production), the mode of entry (e.g., greenfield versus brownfield), the length of investment, the technological gap between foreign and host country firms, the level of development of the host economy, and the capabilities and absorptive capacity of host country firms (Blomström and Kokko, 2001; UNCTAD, 2001; Dunning and Lundan, 2008; Meyer and Sinani, 2009; Farole et al., 2014; Dicken,

2015). The actual outcomes of FDI in concrete regions thus depend on the balance of these various factors. Economic geographers are more likely to recognize and analyze the importance of regional and local conditions for the understanding of different FDI outcomes.

2.2.1 Different Regional Development Outcomes of Horizontal and Vertical FDI

Nevertheless, attempts have been made to identify the general types and features of FDI that are likely to translate into particular regional development outcomes. Already in the early 1970s, Caves (1971) recognized the most important difference between horizontal and vertical FDI. Horizontal FDI involves the production of the same or similar commodity as in the home economy in foreign locations and is therefore typically a market-capture, demand-oriented investment. Vertical FDI is a supply-oriented investment, which involves the location of a particular stage of the production process abroad. Its two basic forms include an efficiency-seeking vertical investment that is seeking to lower production costs and a resource-seeking vertical FDI that is securing access to natural resources, agricultural products or unskilled labor in foreign locations (Milberg and Winkler, 2013; Dunning, 2000). A strategic asset-seeking FDI is a special type of vertical supply oriented FDI that is looking for knowledge-based intangible strategic assets abroad, such as advanced technology, R&D capabilities, managerial know-how and brand assets that could be transferred back to the domestic economy (Kuemmerle, 1999; Pavlínek, 2012; Cui et al., 2014).

Although the regional economic effects of these different types of FDI will depend on the factors listed above, horizontal FDI is more likely to develop stronger and more stable ties with the host economy than vertical FDI (Dicken, 2015; Akyüz, 2017). This is because vertical FDI usually leads to the transnational vertical integration of foreign subsidiaries into home country operations with limited or nonexistent linkages with domestic firms and institutions. Consequently, vertical FDI is also more likely to relocate, should more profitable opportunities emerge elsewhere (e.g., Pavlínek, 2018; 2020). Since linkages with domestic firms and institutions are the main precondition for potential technology transfer from foreign firms to the host economy in the form of spillovers (Blomström and Kokko, 1998; UNCTAD, 2001; Görg and Strobl, 2005; Scott-Kennel, 2007; Santangelo, 2009), horizontal FDI has a greater potential to benefit the host economy in the long run compared to vertical FDI. The concentration of the different types of FDI in different regions is, therefore, likely to lead to different regional development outcomes of FDI.

In this context, it is useful to make the basic distinction between FDI in core regions and peripheral regions (Table 2.1). Core regions have mainly been targeted by horizontal FDI (Milberg and Winkler, 2013), while peripheral regions predominantly by vertical, efficiency-seeking and resource-seeking

FDI (e.g., Yamin and Nixson, 2016). Consequently, more positive effects of FDI have been found in core regions than in peripheral regions (Borensztein et al., 1998; Phelps and Fuller, 2000; Dimitratos et al., 2009; Alfaro et al., 2010; Alvarado et al., 2017).

2.2.2 FDI and Linkages in Host Regions

The existence of linkages with domestic firms and the development of spillovers from foreign to domestic firms have been recognized as potentially the most important long-term regional development effects of FDI in host regions (Javorcik, 2004; Ivarsson and Alvstam, 2005; Blalock and Gertler, 2008; Santangelo, 2009; Narula and Dunning, 2010; Amendolagine et al., 2013; 2019). Economic geographers have identified three basic types of supplier linkages according to their potential impact on domestic firms: developmental, dependent and detrimental (Turok, 1993; Pavlínek, 2018). While developmental linkages are long-term supplier relationships that are based on collaboration and partnership, dependent linkages are short-term and price-based supplier relationships, which are established by foreign subsidiaries in host economies in order to minimize the costs of supplied commodities (Turok, 1993). The cooperation and partnership between firms in developmental linkages encourages the exchange of information, which increases the chances of knowledge and technology transfers from foreign subsidiaries to domestic firms and the chances of their upgrading. In the case of dependent linkages, the exchange of information and knowledge between foreign subsidiaries and domestic firms is limited (UNCTAD, 2001), which undermines the opportunities for the upgrading of domestic firms (UNCTAD, 2001; Gereffi et al., 2005; Pavlínek and Žížalová, 2016).

Horizontal FDI is more likely to generate developmental linkages in host regions, while vertical FDI is more likely to develop dependent linkages. Therefore, developmental linkages are more likely to develop in core regions, while dependent linkages are more likely to develop in peripheral regions. Additionally, the number and intensity of linkages tends to be higher in core regions than in peripheral regions due to the higher number of more capable domestic firms in core regions (Dunning and Lundan, 2008; Meyer and Sinani, 2009). This indicates that FDI is likely to have more positive effects, thanks to the development of linkages, in core regions than in peripheral regions. Detrimental linkages develop in those cases when foreign subsidiaries have negative effects on domestic firms (Hymer, 1972; Bellak, 2004) through, for example, employment and labor market effects (Pavlínek and Žížalová, 2016; Pavlínek, 2018) which are more likely to be associated with vertical than horizontal FDI and, therefore, more likely to develop in peripheral regions than in core regions.

Weak FDI linkages or their absence in peripheral regions have long been recognized. Hirschman (1958) explained that the lack of both backward and

forward FDI linkages in peripheral regions was due to the predominant FDI in mining and agriculture, which is supported by empirical evidence (Nunnenkamp and Spatz, 2003; Morris et al., 2011; Morrissey, 2012; Amendolagine et al., 2013). However, limited FDI linkages have also been found in peripheral regions that have managed to attract a sizeable manufacturing investment, such as Latin America, East and Southeast Asia (Amsden, 2001; Schneider, 2013; Dussel Peters, 2016) and in peripheral regions of more developed countries (Stewart, 1976; Phelps, 1993a; Turok, 1993; Lagendijk, 1995b; Rodriguez-Clare, 1996; Carrillo, 2004; Pavlínek, 2018). The rapidly increased global sourcing and follow sourcing by TNCs has further limited the development of linkages (Larsson, 2002; Tavares and Young, 2006; Williams et al., 2008; Hatani, 2009; Pavlínek and Žížalová, 2016; Pavlínek, 2018; Humphrey, 2000). Empirical evidence thus suggests that the integration of domestic firms into foreign-capital-controlled supplier networks in peripheral regions takes place predominantly through dependent linkages, which weakens the potential for long-term positive effects of FDI (Young et al., 1994; Hatani, 2009; Pavlínek, 2018).

2.2.3 FDI Spillovers in Host Regions

The existence of FDI linkages with domestic firms is the precondition for the development of vertical spillovers from foreign subsidiaries to domestic firms (Blomström and Kokko, 1998; UNCTAD, 2001; Görg and Strobl, 2005; Scott-Kennel, 2007; Giroud and Scott-Kennel, 2009; Santangelo, 2009; Pavlínek, 2018), which are potentially the most important long-term benefit of FDI for host regions (Blomström et al., 2000; Blomström and Kokko, 2001; Görg and Strobl, 2001; Dunning and Lundan, 2008; Giroud, 2012). Spillovers are classified as horizontal and vertical. Horizontal spillovers refer to the unintentional effects of foreign firms on domestic firms in the same industry, while vertical spillovers are both the unintentional and intentional effects on local suppliers and customers of foreign subsidiaries via backward and forward linkages (Blalock and Gertler, 2008; Hallin and Lind, 2012). Assuming that foreign firms investing in peripheral regions are more productive than domestic firms because of their firm-specific ownership advantages (Hymer, 1976 [1960]), the operation of foreign subsidiaries in a host economy will encourage domestic firms to become more productive in order to remain competitive (competition effects). Local firms might increase productivity by imitating the better machinery and organization of the production of foreign subsidiaries (demonstration effects). Productivity spillovers might also result from the supplier relationships between foreign subsidiaries and domestic firms in situations in which foreign subsidiaries are more demanding buyers than domestic firms (Pavlínek and Žížalová, 2016), which will force domestic firms to improve their productivity. Know-how and knowledge can also diffuse through worker mobility from foreign subsidiaries to domestic firms (Görg and Strobl, 2005).

Linkages alone do not guarantee that spillovers will develop since they depend on the absorptive capacity of domestic firms (Saliola and Zanfei, 2009; Ascani and Gagliardi, 2020), which is considered to be crucial for their ability to benefit from FDI (Ernst and Kim, 2002; Meyer, 2004; Giroud et al., 2012; Sultana and Turkina, 2020). The absorptive capacity of domestic firms is strongly conditioned by their R&D capabilities (Cohen and Levinthal, 1989; Sturgeon et al., 2010), which are generally higher in core regions than in peripheral regions (Dunning and Lundan, 2008; Meyer and Sinani, 2009; Pavlínek, 2018; 2022a). Consequently, core regions are more likely to benefit from spillovers and hence from positive long-term effects of FDI than peripheral regions.

However, it has been difficult to measure FDI spillovers in host regions. Economists have predominantly used econometric methods to estimate the existence and extent of spillovers in host economies, which, however, do not reveal how spillovers take place (Görg and Strobl, 2001). This is why economic geographers also use targeted interview and survey questions to measure the extent of spillovers and how they take place (e.g., Pavlínek and Žížalová, 2016).

2.3 APPROACHES IN ECONOMIC GEOGRAPHY TO FDI IN PERIPHERAL REGIONS

Geographic research on the effects of FDI in peripheral regions has been conducted in the context of different conceptual approaches. The following section will summarize the understanding of FDI in peripheral regions by the branch plant economy and truncation, new international division of labor and spatial divisions of labor, new regionalism, and GPN approaches (Table 2.2).

2.3.1 Branch Plant Economy and Truncation

In the 1970s and 1980s, the long-term development effects of FDI in peripheral regions of more developed countries were conceptualized as the branch plant economy and truncation. Branch plants are externally owned factories in peripheral regions that tend to specialize in the mass production of simple standardized goods (Firn, 1975; Townroe, 1975; Dicken, 1976; Hood and Young, 1976; Watts, 1981). Unlike locally owned firms, externally owned branch plants benefit from a potentially greater stability and better prospects for development because of their access to financial resources, suppliers and know-how through their parent corporations (Watts, 1981). However, while branch plants inject capital and create jobs in peripheral regions, they suffer from the outflow of profits and a greater propensity to relocate or close during economic crises. They are also usually truncated since they tend to lack higher-level managerial, decision-making, R&D and other strategic nonproduction functions that remain concentrated in parent enterprises located in core regions

TABLE 2.2 *Basic approaches in economic geography to FDI in peripheral regions*

Approach	Period	Basic argument	Application	Geographic focus	Examples of publications
Branch plant economy and truncation	1970s–1980s	FDI and external control are detrimental to long-term regional development of peripheral regions and preempt economically viable indigenous development	Peripheral regions of more developed countries	Western Europe, particularly Britain, Canada	Firn (1975), Townroe (1975), Dicken (1976), Britton (1976; 1980; 1981), Watts (1981), Hayter (1982), Phelps (1993a)
New international division of labor/ spatial divisions of labor	1980s	Development in peripheral regions is linked to their position, function, and integration in the broader national and world economy. FDI in peripheral regions exacerbates regional inequalities and intensifies uneven and dependent development in less developed countries	Peripheral regions of more developed countries, peripheral regions in general	Western Europe, particularly Britain	Massey (1979; 1995 [1984]), Fröbel et al. (1980), Perrons (1981), Lloyd and Shutt (1985), Scott (1987), Henderson (1989)
New regionalism and territorial	1990s	Increased clustering, enhanced innovation and learning, and capable	Peripheral regions of more developed countries	Western Europe, North America	Dicken et al. (1994), Mair (1993), Amin et al. (1994), Amin

(*continued*)

TABLE 2.2 (*continued*)

Approach	Period	Basic argument	Application	Geographic focus	Examples of publications
embeddedness of FDI		regional institutions will embed FDI in host peripheral regions and increase its regional development benefits			and Thrift (1994), Malmberg et al. (1996), MacKinnon and Phelps (2001a; 2001b)
Global production networks	2000s–	FDI articulates peripheral regions into GPNs through structural couplings in a disadvantageous position	Peripheral regions in general	East Asia	Coe et al. (2004), Yeung (2009; 2015; 2016), Coe and Yeung (2015), MacKinnon (2012)

Source: author.

(Britton, 1980; 1981; Hayter, 1982). Weak supplier linkages with domestic firms and the dependence of branch plants on technology transfers from parent companies and imports of materials and components from abroad tend to limit indigenous technological development in host economies. Consequently, the branch plant economy and truncation literature considers a high level of foreign control through externally owned branch plants to be detrimental to long-term economic interests of peripheral regions (Hymer, 1972; Firn, 1975; Hood and Young, 1976; Britton, 1980; Hayter, 1982; Schackmann-Fallis, 1989).

The branch plant economy and truncation literature fails to recognize the importance of institutions in enhancing regional development potential of FDI in peripheral regions (e.g., Watts, 1981). Strong local institutions can help to reinforce the transfer of technology from branch plants to domestic firms and increase the local value capture (Perkmann, 2006). For example, in recent decades, peripheral regions in more developed countries have benefited from better-quality regional institutions and their increased focus on attracting FDI into high-value-added activities instead of routine manufacturing and services (Iammarino, 2018).

2.3.2 New International Division of Labor and Spatial Divisions of Labor Approaches

In the late 1970s and 1980s, the political economy approaches became increasingly prominent in economic geography (Peet and Thrift, 1989), including the new international division of labor and spatial divisions of labor approaches. The focus was no longer solely on the effects of FDI in peripheral regions but also on the position and role of peripheral regions in the world economy and the new international division of labor, which was then typified by the FDI-driven industrialization of less developed countries, contemporaneous decline of especially labor-intensive industries in more developed countries, and by intensified uneven development (Fröbel et al., 1980; Perrons, 1981; Scott, 1987). The spatial divisions of labor approach analyzed the regional development effects of the new international division of labor in more developed countries by linking changes at the regional level to increasing levels of internationalization (Massey, 1979; 1995 [1984]; Perrons, 1981; Lloyd and Shutt, 1985).

The pioneering work of Doreen Massey (1979; 1995 [1984]) theoretically explained how peripheral regions with foreign-owned branch plants fit in the overall spatial divisions of labor in the entire economy and how the internal economic geography of Britain reflects the place of Britain in the new international division of labor. Massey emphasized the increased geographical separation of different economic functions, such as R&D, production requiring skilled labor and mass production. She explained how large corporations, which are under constant pressure to decrease the cost of labor, take advantage of spatial inequality by setting up the production of particular

commodities in peripheral regions because of low wages, available semiskilled labor, and limited tradition of union resistance (see also Perrons, 1981). FDI capitalizing on this division of labor further reduces the degree of local control in peripheral regions, exacerbates regional inequalities by increasing the transfer of profits and dividends from peripheral regions, and increases the vulnerability of regions to the forces of global competition (Massey, 1979; Perrons, 1981). Massey (1979; 1995 [1984]) explicitly linked the new spatial divisions of labor in Britain to the increased internationalization of the world economy. Underdevelopment in peripheral regions should therefore not be explained by internal characteristics of peripheral regions but by their position and function in the broader national and international economy, which "can only be understood as a single, integrated system" (Fröbel et al., 1980: 15).

Despite building on the branch plant analysis (Perrons, 1981), the spatial divisions of labor approach no longer solely attributed economic difficulties of many branch plant regions to inward FDI and external control because the new international division of labor forced surviving domestic companies to follow similar corporate strategies of rationalization, mergers, acquisitions, relocation and outward FDI. These strategies increasingly affected localities and regions in home economies, often resulting in job losses and factory closures that tended to concentrate in peripheral regions (Fröbel et al., 1980; Perrons, 1981; Lloyd and Shutt, 1985). This further increased the vulnerability of peripheral regions while demonstrating that local firm ownership is no panacea for peripheral regions (Lloyd and Shutt, 1985; Massey, 1995 [1984]). Instead of ownership, the extent of local and regional linkages of branch plants is more strongly affected by different roles these branch plants play in different spatial structures (e.g., a part-process hierarchy and cloning). External ownership itself does not cause problems observed in peripheral regions by branch plant literature, such as the lack of high-value-added activities or the lack of local material linkages, but exacerbates them (Massey, 1995 [1984]). The spatial divisions of labor approach also underlined the need to focus on complex corporate strategies affecting peripheral regions, not only FDI, while also considering the role of political forces and institutions in regional restructuring (Lloyd and Shutt, 1985; Massey, 1995 [1984]).

The new international division of labor/spatial divisions of labor approaches thus highlighted the role of FDI in uneven development at multiple spatial scales and the close relationship between the increased importance of FDI in the world economy and its regional and local economic effects. It is this attention to empirical detail at the local and regional scale of the spatial divisions of labor approach that has been criticized by Marxist economic geographers. They were concerned that it was achieved at the expense of universal abstractions and theory (Harvey, 1987; Smith, 1989) and that it would lead to "a new empiricism" in economic geography (Smith, 1987). The increased attention to the processes taking place at the local and regional scales contributed to the

development of new regionalism in economic geography, while, at the same time, the usage of the term "global production networks" by Lloyd and Shutt (1985: 33, 50) signals the importance of the new international division of labor/spatial divisions of labor approaches for the development of the GPN perspective (Henderson et al., 2002).

2.3.3 New Regionalism and Territorial Embeddedness of FDI

The "institutional turn" in economic geography of the 1990s highlighted the importance of institutions in regional economic development (Amin, 1999; Martin, 2000; Cumbers et al., 2003; Farole et al., 2010; Bathelt and Glückler, 2013). Geographers also recognized that the spatial reorganization of economic activities driven by economic globalization and growing FDI inflows (Figures 1.1 and 1.2) might enhance the beneficial effects of FDI in peripheral regions of more developed countries (Amin et al., 1994; Dicken, 1994). Changes in the organization of manufacturing, such as the development of just-in-time production, increased clustering of manufacturing firms (Mair, 1993; Sturgeon et al., 2008). It was argued that knowledge accumulation within clusters would attract higher-value-added FDI to host regions, while the development of supplier linkages with domestic firms and other foreign firms in these clusters would increase the embeddedness of foreign branch plants in peripheral regions (Dicken et al., 1994). Spillovers from FDI to the local economy, in turn, would create conditions for progressive upgrading in peripheral regions through enhanced learning and innovation supported by dynamic regional institutions and high levels of "institutional thickness" (Amin and Thrift, 1994; Malmberg et al., 1996; Morgan, 1997). Although different types of embeddedness are recognized (Hess, 2004), in terms of FDI, economic geographers mainly focused on the territorial embeddedness of foreign firms in local supply networks in peripheral regions (Dicken et al., 1994; Pavlínek and Smith, 1998; Pavlínek, 2002d). It was argued that "embedded" branch plants combined with dynamic regional institutions would improve the regional competitiveness of peripheral regions and ultimately ease regional development deficiencies related to the branch plant economy and truncation, which would lead to a more balanced, diversified and successful regional economic development (Mair, 1993; Amin and Thrift, 1994). Such optimistic and celebratory claims about the role of FDI in regional development of peripheral regions have been embraced by regional development policy circles in Western Europe and the USA (Lovering, 1999). The new regionalism became a new orthodoxy of regional economic development despite its weak theoretical foundations and inadequate empirical analyses, resulting in weak empirical evidence (Lovering, 1999; MacKinnon et al., 2002) and an "overterritorialized" view of embeddedness (Hess, 2004).

The claims of the new regionalism about the increased territorial embeddedness of FDI failed to be supported by strong empirical evidence even under the most favorable circumstances, such as in the case of the automotive

industry with its dense supply networks and high levels of FDI. New regionalism claimed that automotive branch plants and new investments were gradually transformed into "performance/networked branch plants" that had strong local supplier linkages and spinoffs to host regions based on increased outsourcing, just-in-time production, and increased nonproduction functions related to their greater operating and even strategic autonomy (e.g., Amin et al., 1994; Dawley, 2011). However, the empirical evidence showed that despite the limited functional upgrading and the introduction of new production techniques in assembly plants, domestic firms continued to be excluded from supply networks of foreign-owned branch plants (Phelps, 1996; Pike, 1998; Larsson, 2002). For example, the majority of foreign-owned automotive assembly firms in Western Europe were not locally embedded and had only few direct linkages to the surrounding locality or region (Larsson, 2002). This has also been the case of the rapidly expanding automotive industry in Eastern Europe (Pavlínek and Žížalová, 2016; Pavlínek, 2018). Weak FDI linkages also continued to be the norm in the electronics industry (Turok, 1997) and in other industries (Phelps, 1993a; 1993b; Pike and Tomaney, 1999; Crone, 2002; Crone and Watts, 2003; Phelps et al., 2003).

Waves of closures of flagship foreign investments in Britain since the late 1990s undermined one of the main claims of new regionalism about the increased stability of FDI in peripheral regions due to its increased embeddedness and questioned the continuing FDI-based regional development strategies (Dawley, 2007a; 2007b). Outside of Western Europe and the USA, the application of new regionalism to FDI in peripheral regions has been even more problematic because of few capable domestic firms (Pavlínek and Žížalová, 2016; Pavlínek, 2018), weak institutions and a low quality of governance (Rodríguez-Pose and Di Cataldo, 2015; Ketterer and Rodríguez-Pose, 2018). Empirical evidence provided by economic geographers thus suggests that the limited long-term development effects of FDI in peripheral regions that are identified by the branch plant economy, truncation and spatial divisions of labor approaches mostly continue to persist, despite the significant reorganization of the capitalist economy since 1990.

The new regionalism and territorial embeddedness approach fails to adequately consider the role of extraregional factors in regional development, such as the state and the position of regions in the international division of labor, which represents a departure from the new international division of labor/spatial divisions of labor approaches. However, the embeddedness approach and its critique have strongly influenced thinking in contemporary economic geography by emphasizing the close relationship among FDI, institutions, networks, and embeddedness in regional development. The recognition that the ability to attract FDI and its embedding in peripheral regions strongly depend on the institutional capabilities, institutional environment and the territorial politics of FDI attraction of host regions has been especially important (Phelps et al., 2000; MacKinnon and Phelps, 2001a; 2001b; Fuller and Phelps, 2004; Dawley,

2007a). It has also contributed to the development of the GPN perspective after 2000, to which we now turn.

2.3.4 Global Production Networks and FDI

The GPN perspective emphasizes the importance of the integration of regions into transnational production networks for their successful economic development. It analyzes how and where value is created, enhanced and captured in GPNs, and how it affects the potential of different places and regions for economic development (Henderson et al., 2002; Coe et al., 2004; Coe and Yeung, 2015; 2019). The GPN approach considers the role and multitude relationships of different firm and nonfirm actors in GPNs (Coe et al., 2008; Coe, 2021). Here, however, the focus is on FDI, which is only one of many different ways for TNCs to organize and coordinate GPNs in addition to various forms and strategic mixes of investment and trade (Dicken, 2015). This might explain why the importance of FDI in the contemporary regional economic development is not always fully acknowledged by the GPN perspective (e.g., Coe and Yeung, 2019), especially when compared to the related GVC approach (e.g., Kano et al., 2020; Gereffi et al., 2021; Zhan, 2021), and despite the attempts to bring together GPN research with research on FDI and regional development (MacKinnon, 2012).

Regional development in host regions is conceptualized as the outcome of the strategic coupling between regional assets and the profit-driven needs of TNCs (Coe et al., 2004; Yeung, 2009; Coe and Yeung, 2015). One possible way in which a strategic coupling can form is via FDI (Coe et al., 2004; MacKinnon, 2012; Kleibert, 2014; Pavlínek, 2018; Coe, 2021). Three basic modes of strategic coupling (indigenous, functional and structural) (Table 2.3) therefore also reflect differences in the nature and role of horizontal and vertical FDI in regions occupying different positions in the international and national divisions of labor (Yeung, 2009; 2015; 2016; MacKinnon, 2012; Coe and Yeung, 2015). Core regions are mostly articulated with GPNs through indigenous (organic) couplings. They tend to attract horizontal FDI in higher-value-added manufacturing and services. As the largest source of outward FDI (e.g., Iammarino, 2018), they host a disproportionate share of headquarters and higher-value-added knowledge-intensive activities of TNCs (lead firms), such as R&D and sales, from which TNCs create and capture a significantly greater value than from manufacturing operations (Mudambi, 2008; Rehnberg and Ponte, 2018; Gereffi, 2020). Corporate headquarters wield power and control over the internationally dispersed operations of TNCs in peripheral regions, which further enhances the value capture of core regions through profit repatriations, profit shifting strategies and transfer pricing (Dischinger et al., 2014a; 2014b; Akyüz, 2017).

Peripheral regions are mainly recipients of vertical FDI (Table 2.1) and are articulated with GPNs through structural couplings. Foreign firms establish

TABLE 2.3 *FDI and the modes of strategic coupling in GPNs*

	Indigenous coupling	Functional coupling	Structural coupling
Predominant mode of FDI	Outflows	Mixed	Inflows
Predominant type of inward FDI	Horizontal	Mixed	Vertical
Degree of foreign ownership and control	Low	Medium	High
Power position of firms in GPNs	Control	Partnership	Dependency
Number of indigenous lead firms	High	Medium	Low
Capabilities of domestic firms	High	Mixed	Low
Foreign–domestic firms' supply relations	Partnership	Mixed	Dependency
Embeddedness of foreign firms	High	Medium	Low
Predominant FDI linkages	Developmental	Mixed	Dependent
Value capture	High	Medium	Low
Degree of regional autonomy	High	Medium	Low
Regional position in the division of labor	More developed countries	Emerging economies	Less developed countries

Source: author.

subsidiaries and supplier linkages in peripheral regions mostly for cost-cutting reasons (assembly platforms) or securing access to natural resources (commodity source regions) (Bridge, 2008; Milberg and Winkler, 2013; Coe and Yeung, 2015). Most foreign subsidiaries and subcontracted tasks concentrate on production in the form of standardized export-oriented assembly, mining or routine service functions, while lacking an adequate development of high-value-added strategic nonproduction functions, which are provided by TNC headquarters and R&D centers from the home countries of TNCs (Kleibert, 2016; Pavlínek, 2016; Pavlínek and Ženka, 2016). This results in lower value creation in the FDI host regions than in the source core regions. The value capture is diminished by lower corporate taxes compared to core regions (Pavlínek and Ženka, 2016; Pavlínek, 2020), the transfer of value from foreign subsidiaries into core-based corporate headquarters through profit repatriations (Dischinger et al., 2014a; 2014b) and low wages and weak linkages of foreign subsidiaries with domestic firms (Pavlínek, 2018). Lower value creation and capture translates into smaller long-

term economic development effects of FDI in peripheral regions compared with core regions. Additionally, both assembly platforms and commodity source regions are typified by asymmetrical power relations between TNCs and host regions, and are vulnerable to potential decouplings through disinvestment, relocations and factory closures by TNCs (MacKinnon, 2012; Coe and Yeung, 2015). Thus, despite the short-term economic gains from FDI in the form of jobs and economic growth, many host peripheral regions represent an example of the less favorable articulation of regions into GPNs through FDI, what Coe and Hess (2011) called the "dark side" of strategic coupling, which may lock peripheral regions in disadvantageous and dependent positions in GPNs (Akyüz, 2017).

Emerging regions are usually articulated with GPNs through functional couplings (MacKinnon, 2012; Coe and Yeung, 2015; Yeung, 2015). In terms of FDI, these regions differ from peripheral regions in a greater balance between inward and outward FDI, the mixture of horizontal and vertical FDI, and stronger, more capable domestic firms that are able to globalize through investing abroad (Amsden and Chu, 2003; Yeung, 2016; Jo et al., 2023). This provides for greater regional autonomy, less dependency on foreign capital and technology, and greater value creation and capture (Table 2.3).

The formation of strategic couplings based on"FDI is often a highly politicized process (Phelps and Wood, 2006; 2018b; Drahokoupil, 2009; Dawley et al., 2019) that depends on a favorable institutional environment, which is even more important for a potential decoupling from the structural couplings and recoupling into the functional or indigenous strategic couplings (Bair and Werner, 2011a; Horner, 2014; Coe and Yeung, 2015; Yeung, 2015). The decoupling from structural couplings can take place through disinvestment (Clark and Wrigley, 1997; Benito, 2005; Bair and Werner, 2011b; Werner, 2016) or with the help of strategic regional and industrial policies (Yeung, 2015). Given the unfavorable institutional environment in many peripheral regions (Rodríguez-Pose and Di Cataldo, 2015; Ketterer and Rodríguez-Pose, 2018), strategic decoupling and recoupling is difficult to achieve, although successful examples exist (Horner, 2014; Lee et al., 2014; Yeung, 2015).

The role of the state in coupling/decoupling/recoupling efforts is crucial and is reflected in the growing interest of economic geographers to understand the regional development outcomes of various state policies in the context of GPNs (e.g., Smith, 2015; Horner, 2017; Rutherford et al., 2018; Dawley et al., 2019; Werner, 2021). States' bargaining powers with TNCs have decreased mainly due to FDI liberalization, the World Trade Organization's multilateral rules and obligations on investment policies, and bilateral investment treaties (e.g., Phelps, 2008; Akyüz, 2017; Horner, 2017). Consequently, only a few less developed countries, particularly China, have been able to effectively regulate inward FDI after 1990 (Chen, 2018; Schwabe, 2020a).

Overall, GPN analyses focusing on FDI came to similar conclusions about long-term developmental effects of FDI in peripheral regions as the earlier

approaches (including the critique of new regionalism) (e.g., Kleibert, 2016; Pavlínek, 2018). Along with heterodox approaches in the international business literature (Andreoni and Chang, 2019; Chang and Andreoni, 2020), the GPN approach has argued that FDI should be part of a broader development strategy, in which peripheral regions systematically develop regional assets that would attract FDI into high-value-added activities (Coe et al., 2004; Coe and Yeung, 2015). In the contemporary economy, it means attracting FDI into strategic nonproduction functions that require a long-term systematic investment into high-quality education, innovation activities and the development of regional institutions that support the growth of the knowledge economy and the upgrading of domestic firms. However, it is unrealistic to expect all peripheral regions to successfully adopt this approach, especially in less developed countries where resources are scarce, high-quality education and skills are limited and technology is less advanced. Moreover, it is reasonable to assume that in the context of peripheral regions, vertical FDI will predominantly continue to search for low-cost manufacturing and service locations, and access to raw materials and select agricultural commodities.

2.4 CONCLUSION

There is little doubt that FDI, along with other transnational strategies of TNCs, will continue to shape the economic development in peripheral regions in the foreseeable future despite the long-term uncertainties related to the global climate crisis, short-term crises such as the COVID-19 pandemic, the transition to the digital economy and the stagnation of GPN trade since the 2008 global financial crisis (Kowalski, 2020; OECD, 2020; World Bank, 2020; UNCTAD, 2020; 2021). There is also little doubt about the geographically uneven nature of these developments at different geographic scales (World Bank, 2020; UNCTAD, 2021).

The conceptual approaches reviewed in this chapter reflect the efforts of economic geographers since the 1970s to understand the effects of FDI in peripheral regions in the context of increasingly complex changes due to rapidly advancing economic globalization. Given the anticipated changes in the world economy in the coming decades, geographers will need to continue these efforts to remain a relevant voice in examining uneven development. Other disciplines, such as economics, international business studies and international political economy, maintain a strong interest in FDI (e.g., Buckley et al., 2017; Zhan, 2021). The unique contribution of geographers revolves around their understanding and analyzing FDI in the context of uneven development, one of the core themes in economic geography (Peck, 2016; Werner, 2016; 2018; Dunford and Liu, 2017; Phelps et al., 2018), and in their regional approach to FDI (Iammarino, 2018). Although the importance of subnational regional analysis has recently been recognized by the international business literature (Hutzschenreuter et al., 2020), it continues to be underdeveloped in both

economics and international business compared to geography (Iammarino and McCann, 2018).

There are underrepresented topics in the geographical analyses of FDI in peripheral regions that call for complementing the existing research. In addition to FDI inflows, economic geographers need to pay a greater attention to reinvestment (Phelps and Fuller, 2000; Fuller and Phelps, 2004; Wren and Jones, 2009) and disinvestment (Benito, 2005; Dawley, 2007a), which often have more important regional development effects than new FDI projects (Pavlínek, 2020). Economic geographers should focus more on the developmental effects of the rapidly increasing outward FDI from emerging economies in peripheral regions, especially from China (Taylor and Zajontz, 2020; Lia and Cantwellb, 2021). The service sector now accounts for two-thirds of global FDI stock (UNCTAD, 2017), with financial services alone accounting for more than one third (UNCTAD, 2020). However, despite a growing interest in FDI in services in peripheral regions (e.g., Kleibert, 2016; Gersch, 2019; Murphy, 2019), it continues to be an underrepresented topic, including FDI in financial services (e.g., Coe et al., 2014; Haberly and Wójcik, 2015; 2022; Blažek and Hejnová, 2020). A rapid growth of FDI in the extractive industry in peripheral regions also deserves greater attention (e.g., Phelps et al., 2015; Bridge and Bradshaw, 2017; Narula, 2018), along with FDI in agriculture (UNCTAD, 2009; Santangelo, 2018) and the environmental effects of FDI (Zhang, 2013; Demena and Afesorgbor, 2020).

Projected changes in international production and FDI in the 2020s will have important implications for peripheral regions (Enderwick and Buckley, 2020; UNCTAD, 2020; World Bank, 2020; Zhan, 2021), making FDI research attractive. The increased automation of production will likely decrease the relevance of low labor costs and low-cost locations and lead to increased reshoring and insourcing in higher-tech industries (e.g., the electronics, automotive, machinery industries) and lower-value-added services (e.g., sales and marketing). The increased digitalization of supply chains will likely lead to the development of even more complex GPNs, the expansion of international production in lower-tech industries (e.g., apparel) and higher-value-added services (e.g., finance). Increased automation and digitalization, along with the effects of regional integration trends toward more sustainable local and regional sourcing and the push for a lower dependence on imports of strategic commodities by core regions (e.g., medical supplies, pharmaceuticals, semiconductors), will likely lead to an increased organization of GPNs at the macro-regional scale (e.g., the automotive industry, food processing, agriculture) (UNCTAD, 2020; 2021; Gereffi et al., 2021; Zhan, 2021). The impact of these trends will be uneven across different industries and services, leading to uneven geographic effects and distinct regional development outcomes that will likely intensify the differences between core regions and peripheral regions, providing excellent research opportunities for geographers studying uneven development.