

FOREIGN DIRECT INVESTMENT AND EXPORTS. SUBSTITUTES OR COMPLEMENTS. EVIDENCE FROM TRANSITION COUNTRIES

Bardhyl Dauti¹
Ismet Voka²

ABSTRACT

The objective of this research is to provide an empirical assessment of the nature of FDI in selected transition countries, using bilateral country level data on FDI flows and export flows, between 5 South East European Countries (SEE-5), 10-New EU member states (EN-NMS-10) and 14 European Union countries (EU-14 countries), at a yearly time period from 1994 to 2010. For estimation purpose, we use standard panel estimates of the robust fixed effects. The study finds that country characteristics, like differences in GDP and GDP per capita, as well as differences in factor endowments between countries at labor and capital base and trade cost, are significantly related to export flows between countries. With regard to the relationship between exports and FDI the findings of the study support vertical nature of FDI in the SEE-5 and EU-NMS-10 countries, whereas, based on country characteristics the findings of the study support horizontal nature of FDI. The conclusion is that the paper confirms the mixed nature of FDI into host countries, supporting both vertical and horizontal nature of FDI.

Keywords: *transition countries, complements, substitutes, fixed effects*

JEL Classification: *F12, F14, F21, F23.*

1. Introduction

The relationship between FDI and exports has received extensive attention in the late empirical evidence. Theoretical predictions on the relationship between FDI and exports depend on the nature of FDI. Horizontal FDI is negatively related to trading, whereas vertical FDI is positively related to trade (Markusen, 1984; Helpman, 1984). In this regard, horizontal (vertical) FDI are considered as substitute (complement) goods to trade (Shatza and Venables, 2000). With regard to trade cost, horizontal (vertical) FDI operates under the conditions of moderate to high (low) trade costs and trade and tariff barriers. With regard to country characteristics, horizontal (vertical) FDI operates under the conditions of large absolute market size and similar factor endowments (small absolute market size, different relative factor endowments) (Lipsey & Weiss, 1981; 1984; Ramstetter, 1991; Swenson, 1996; Dauti, 2016). The main purpose of this paper is to provide empirical evidence on the nature of FDI in the selected transition countries of South East European region and Central East European region, based on country characteristics and trade costs evidence. The developed model in this paper provides a unified theory considering both

¹Assistant Professor: PhD, University of Tetovo, Faculty of Economics, department of Economics, ilindenska road, 1200, Tetovo, Macedonia, bardhyl.dauti@unite.edu.mk

² Lecturer: PhD, European University of Tirana, Faculty of Economics and information technology, Bulevardi Gjergj Fishta Nd. 70, Tirana 1023, Albania, is-voka@hotmail.com

vertical and horizontal FDI. In this regard, the framework of the study will link the country characteristics to the relationship between FDI and exports to generate the hypotheses: It is expected that FDI from EU-14 to SEE-5 and EU-NMS-10, will have an effect on increasing the exports from SEEC-5 and EU-NMS-10 to EU-14.

The findings of the paper suggest a mixed nature of FDI in the host transition countries. On the grounds of country characteristic differences and trade cost, FDI and exports are substitutes and the nature of FDI is horizontal. On the other, on the grounds of the relationship between exports and FDI, the paper finds that bilateral FDI flow is positively related to exports, suggesting a complementary relationship between FDI and exports supporting vertical nature of FDI. The paper is organized as follows. The next section presents a theoretical approach to the studies on horizontal and vertical FDI, associated with empirical evidence. Section three describes the data, presents the methodology and the empirical model. Section four presents results obtained by estimating the empirical model framework. The last section summarizes the results and concludes.

2. Theoretical approach and empirical literature

The theory of multinational firms originated from the theory of capital flows (Caves, 1971). The empirical literature on this theory suggests that FDI activities should be focused on capital – abundant countries with subsidiaries in capital – scarce countries. Consequently, this theory by itself was insufficient to explain the FDI activities in identical countries. This fact led to new developments of new "Trade theory" that capture Trade and FDI activities, at the same time, based on the idea of increasing returns to scale and imperfect competition to the traditional capital flow models (Dunning, 2012). The "capital flow" theory, later on, was split into two parts: the theory of vertical FDI and horizontal FDI. "Vertical FDI" dominates in cases when the firm geographically separates the production stages and "horizontal FDI" dominates when the firm produces homogenous products in different locations (Carr et al. 2001). However, there is no clear cut between vertical and horizontal FDI, since horizontal FDI are viewed as vertical FDI in cases when the affiliates draw some headquarter services from the parent company, even when the firm duplicates the same production activity in multiple countries (Carr et al. 2001). Thus, each horizontal FDI has some vertical ties.

a. Horizontal FDI

The horizontal-FDI view is that multinationals arise because trade barriers make exporting costly. The formal setup is one in which firms have a high-fixed-cost headquarters and one or more production plants. When trade costs are low, a firm produces all output in domestic plants and serves foreign consumers through exports. When trade costs are high, a firm becomes multinational by building production plants at both home and abroad, each serving just that country's consumers. This type of FDI is called horizontal because the multinational does the same activities in all countries. (Carr et al. 2001). Therefore, theoretical concepts of horizontal FDI suggest the presence of positive trade costs.

Theoretical models on horizontal FDI, date back to the studies of Markusen (1984; 1996) and Brainard (1993). Further developments of the horizontal model of FDI were conducted by Markusen and Venables (1998). Markusen and Venables (1998) extended the aforementioned models to a full multi-country framework, allowing for the mix of multinational and local firms

in each country. In the former, multinationals dominate in countries that are similar in size, factor and technology endowments. In the latter, the authors show that dissimilarity in relative factor endowments reduces the horizontal activity of MNE.

b. Vertical FDI

The vertical-FDI view is that multinationals arise to take advantage of international factor price differences. When factor prices differ across countries, firms become multinational by locating production in countries where manual labor costs are low (Carr et al. 2001). The theoretical modeling of vertical FDI was driven by cost – factor differences across countries in factor endowments. Vertical FDI takes place in cases when the production process is fragmented geographically in different locations, in order to exploit relative factor cost differences between countries (Hanson et al. 2005). Closely related to the term vertical FDI is the literature on outsourcing and fragmentation (Feenstra, 1998). These terms are more general and include often the geographical separation of production that takes place outside the firm. (Feenstra, 1998). Vertical FDI can also be viewed as ‘‘export-platform FDI’’ (Ekholm et.al. 2007). Export platform FDI defines the produced output in a host country, which is sold to a third market and not in the parent or local market, subject to conditions that the location where the output can be sold is chosen on the basis of cost considerations. (Ekholm et.al. 2007). Vertical FDI is also seen as trade creation since products at different stages are shipped between different locations. (Yi, 2003).

Theoretical models on vertical FDI date back to the studies of Helpman (1984, 1985) and Helpman and Krugman (1985). These models were based on the extended Heckscher-Ohlin trade theory with two factors of production and two sectors, one perfectly competitive with constant returns to scale and the other producing differentiated products under increasing returns to scale. (Helpman and Krugman, 1985). Helpman (2003) showed that MNCs fragment the production capacity only when countries differ significantly in relative factor endowments. Detailed information on the review of empirical literature on Trade-FDI nexus model can be found in Dauti (2016).

3. Data, methodology and empirical approach

In our empirical exercise, we use bilateral panel level data for EU-14c³, SEE-5c⁴ and EU-NMS-10c⁵, for the period from 1994 to 2010. The dataset contains information on country characteristics based on aggregate-level data (Gross Domestic Product, Gross Domestic Product per capita, labor skill endowments, capital endowments, transition reforms progress and trade costs) and detailed information on country's exports, imports and foreign direct investments flows between different countries. In this paper, we test of the country's driving motives into outward FDI flows, and in particular their productivity performance of the sample countries. Most of the existing empirical studies use cross – section data at the firm and sectoral level, while this study extends this approach to country-level data, using bilateral panel data set between countries. The original data set contains 29 countries. All of these countries had export and foreign direct

³ Austria, Belgium, Denmark, France, Finland, Germany, Greece, Ireland, Italy, Netherland, Portugal, Spain, Sweden and the United Kingdom

⁴ Albania, Bosnia and Herzegovina, Croatia, Macedonia and Serbia

⁵ Bulgaria, Romania, Slovenia, Slovak Republic, Czech Republic, Hungary, Poland, Latvia, Lithuania, and Estonia

investment flows between them. The FDI flows and export flows data were provided from OECD database. The data that provide country information characteristics were provided from World Bank dataset and UNCTAD.

In this paper, we test the relationship between FDI and exports by including SEE-5 and EU-NMS-10 countries as exporting (partner) countries and host countries of FDI and EU-14 countries as a reporting (importing) country and source countries of FDI. The reduced form equation of related choice variables is given below.

$$\ln \Delta x_{ijt} = u_t + \beta_0 \ln fdi_{ijt} + \beta_1 \ln difgdp_{ijt} + \beta_2 \ln difgdp_{pc_{ijt}} + \beta_3 \ln op_{jt} + \beta_4 \ln tr_{ijt} + \beta_5 \ln t_{ijt} + \beta_6 \ln dskill_{ijt} + \beta_7 \ln dcap_{ijt} + SEE + \varepsilon_{ijt} \quad (1)$$

Where ΔX_{ijt} stands for exports flows from country j to country i in year t . FDI_{ijt} is an inflow of FDI from source country i to host country j in year t . $difGDP_{ijt}$ and $difGDP_{pc_{ijt}}$ is a difference between countries i and j GDP and GDP per capita. Op_t indicates country j 's overall trade openness measured by the sum of exports and imports over GDP, while tr_{jt} is country j 's overall advancement of reforms according to the EBRD Transition index. $dskill$ is the absolute difference in the relative skill endowments between country i and j at time t , $dcap$ is the absolute difference in the relative capital endowments between country i and j at time t . To capture the trade costs, in the model will be included transport costs, t_{ijt} to reflect natural barriers (Carr et al. 1998). The SEE dummy, distinguishing between the SEE and EU NMS, is included in order to check whether FDI flows from EU-14 to SEE-5 countries may result in a lower impact on SEE countries' export flows in comparison to the NMS-10 countries. ε_{ijt} is the usual standard error.

a. Hypothesis

The main relationship we are interested in is between FDI and exports. Whether exports and FDI are complements or substitutes depends on whether FDI is horizontal or vertical. Markusen *et al* model suggest that FDI is horizontal when countries are similar in size and relative factor endowments. Hence, we expect FDI and exports to be substitutes when the coefficients of $lndgdp$, $lndskill$ and $lndcap$ are small, provided that trade costs are moderate to high. Therefore, if the coefficients of $lndgdp$, $lndskill$ and $lndcap$ are close to zero, which means that countries are identical, and trade costs are large, then FDI is horizontal, hence exports and FDI are substitutes. If countries are different in size and relative endowments, and trade costs are moderate to low, it is expected vertical FDI to dominate, and therefore FDI and exports are complements. Therefore, considering country characteristics, we expect FDI and exports to be complements if differences in relative country size and factor endowments are large and trade costs are moderate to low. However in a model with multi – stages of production and multi – countries we do not have a clear prediction on the interactive skill and capital variables.

Table 8: Regressors, hypothesis and data sources

Regressors	Expected sign	Explanation	SOURCE
fdi_{ijt}	+/-	If all countries were identical and trade costs were zero there would be no motivation for FDI. Positively (negatively) estimated coefficient denotes for the presence of vertical (horizontal FDI).	OECD
$difgdp_{ijt}$	+/-	According to standard trade theory, we would expect that an increase in the difference in GDP between partner countries will	UNCTAD

		reduce the trade volume between countries since trade is expected to maximize when countries are of equal size (Helpman and Krugman, 1986). However, according to standard gravity model applied in trade studies, we expect positive impact of the absolute difference of GDP between trading partners on the size of bilateral trade (export and import) flow	
$difgdpc$	+	It is expected that high-income EU-14 countries will trade more with relatively low-income EU-NMS-10 and SEE-5 countries	UNCTAD
op_{jt}	+	The fewer restrictions an importing country imposes on trade the higher will be traded flow from exporting country. Therefore, a positive relationship between trade openness and trade flow is expected.	UNCTAD
$tr_{ij,t}$	+	$lntr_{jt}$ is measured by the sum of the indexes denoting overall infrastructure reform, banking reforms, trade and foreign exchange rate reforms and the reforms in the securities and no – bank financial institutions (Johnson, 2006). It is expected that the transition progress will be positively associated with bilateral trade flow	EBRD
$t_{ij,t}$	+/-	It is expected that an increase in trade costs reduces trade volumes. Symmetric bilateral trade costs are computed using the Inverse Gravity Framework (Novy, 2009), which estimates trade costs for each country pair using bilateral trade and gross national output.	World Bank
$dskill_{ij,t}$		$dskill_{ijt}$ is measured by the difference of employment in the service sector (as a percentage of total employment), between country i and country j and. According to standard trade theory, it is expected that an increase in differences in relative labor endowments will increase trade flow.	World Bank
$dcap_{ij,t}$		$Dcap_{ijt}$ variable denoting the absolute difference in the relative capital endowments between country i and j , measured by gross fixed investments in relative to total employment, in terms of the absolute difference of the EU – 14 ratio less the ratio for country j (SEE - 5 and CEE - 10). It is expected that an increase in differences in relative capital endowments will increase trade flow.	World Bank
SEE		SEE = 1 denoting SEEC; 0 otherwise, denoting EU-NMS-10c	

b. Econometric issues - Testing the relationship between bilateral exports and FDI

This section aims at testing the relationship between bilateral FDI flow and exports. In the table below we report the base and robust coefficients for Ordinary Least Square (OLS), fixed effects (FE), random effects (RE). The robust estimates are conducted to control for serial correlation and homoscedasticity in these models. Additionally, feasible GLS estimates are presented in the study, due to their robustness to the same problems. The Breusch and Pagan Lngrangian Multiplier (LM) test confirm the relevance of panel effect in the data⁶. This is an evidence of significant difference across countries; therefore we can choose a simple RE regression in

⁶ The null hypothesis in the LM test is that variances across entities are zero. The chi - square of 443,99 and the associated p - value of 0.00, from the LM test, is an evidence that we can reject the null and conclude that random effects are appropriate

relation to pooled OLS. To test for heteroscedasticity, we have used modified Wald test for group-wise heteroscedasticity in the fixed effect regression model. Using Wald test⁷, we conclude the presence of heteroscedasticity in the data. Wooldridge test for autocorrelation is used to test for autocorrelation in the panel. Using this test, we reject the null hypothesis of no - serial correlation and conclude the data does have the first-order autocorrelation⁸. To choose appropriate specification, we have used Hausman test. The output from Hausman test leads to a strong rejection of the null hypothesis that random effect estimates provide consistent estimates, therefore, we choose fixed effect estimates for interpreting the results (column 2). However, in order to control for no auto - correlation, and homoscedasticity, we have also provided the robust estimates from OLS, FE, and RE models. Using Sargan - Hansen statistic (*xtoverid*), we reject the null that robust random effect estimates are consistent, suggesting to choose robust fixed effect estimates for interpreting the results (column 4)⁹

4. Results

In this section, we present the empirical results. We discuss the economic interpretation of models summarized in table 2, bearing in mind the significant coefficients from fixed effects and robust fixed effects, which are suggested by testing procedure, should be considered for interpretation of the results. Considering country characteristics, we find that bilateral exports increase with the differences in bilateral GDP between EU-14 countries with SEE-5 and EU-NMS-10 countries, (the coefficient of difference in GDP is positive and significant). Also, the effects of relative differences in skill endowments and capital endowments are statistically significant. However, the results are confirming that the size of the coefficients of GDP difference and factor endowments differences at labor and capital base are very small. Interpreting the results from robust FE estimates, we find that a 10 percentage points increase in terms of GDP difference between the importing and exporting countries, will increase the exports flows from exporting SEE - 5 and EU - NMS - 10 to importing EU - 14 countries by 5,19 percentage points, that is lower by around 4,81 percentage points. Therefore, there is no indication that GDP difference is concerned with high volumes of export movements. The coefficient of capital endowment difference indicate that SEE-5 and EU-NMS-10 exports increases to EU-14 countries as the capital endowment differences increases between countries, thus confirming the standard trade theory that trade increases with differences in relative capital endowments (Helpman and Krugman, 1995), although the size of trade boost due to the increase of capital endowment differences between countries, is very small. Focusing on column (5), 10 percentage points increases in differences of relative capital endowments between EU-14 with SEE-5 and EU-NMS-10, is associated with 2,45 percentage points increase of export flows from, that is lower by around 5,19 percentage points. On the other hand, skill endowment difference between countries indicates that export level of SEE-5 and EU-NMS-10 back to EU-14, increases

⁷ The null hypothesis from this test is that there is homoscedasticity in the data (constant variance). The chi2 of 1.1e+3, and the associated p - value from 0,000 the Wald test is sufficient evidence to reject the null hypothesis of homoscedasticity in the data. Hence the data suffer from heteroscedasticity problem

⁸ The p - value associated with the Wooldridge test for serial correlation is 0, 00. This is a sufficient evidence to reject the null hypothesis of no - serial correlation in the data

⁹ The Sargan - Hansen statistics of 189.618 and the associated p - value with this test of 0,000 suggest to reject null hypothesis of Sargan - Hansen test that robust random effect estimates provide unbiased and consistent estimates.

as the difference in relative skill endowments between countries decreases, although the size of skill endowment coefficient is very small. The robust fixed effect estimates confirm that 10 percentage points increase in the differences in relative skill endowment between countries is associated with 1 percentage point decrease of SEE-5 and EU-NMS-10 exports, which is lower by 9 percentage points. Trade cost is negatively related to exports, as expected. The size of trade cost coefficient is very high. The results are confirming that 1 percentage point increase in bilateral trade cost between exporting and importing countries, reduces bilateral trade activity at export level between countries by 2,8 percentage points, indicating that export performance of SEE - 5 and EU - NMS - 10 countries, decreases by around 3 times, as the trade cost between countries increases by around 1 time. The transition progress variable confirms the significant and positive effect of advancements of institutional reforms of exporting SEE - 5 and EU - NMS - 10 country institutions on export performance of these countries. The coefficient of bilateral FDI is significant and positive in fixed effect specifications, although the size of the coefficient of FDI very small. Hence, there is no indication that export performance of SEE - 5 and EU - NMS - 10 countries, is concerned with large FDI movements since the size of FDI coefficient is very small and significant at 5 percent level of significance. This indicates that a considerable increase of bilateral FDI activity, at flow level from EU - 14 to SEE - 5 and EU - NMS - 10 countries, by 10 percentage points improves the export performance of exporting countries by only 0.2 percentage point, that is lower by 9,8 percentage points. This lack of consideration of FDI movements relates well to the recent events, when the consequences of the global economic and financial crisis in Europe, caused significant reduction of the spillover effect of FDI activity on the improvements of host country trade performance. However, this finding supports the main hypothesis of the study that exports from SEE - 5 and EU - NMS - 10 countries will increase as a result of the presence of foreign capital in the form of FDI. However, the negative and significant coefficient of SEE dummy variable in the robust random effect specification, suggest a reduction of bilateral trade of EU – 14 countries with the SEE – 5 countries, leaving room for future research, about the way how trade can be furthermore stimulated between SEE – 5 and EU – 14 countries. In general, the results of the paper provide an empirical assessment, of *Markusen et al (1996)* and *Helpman (1984)* theoretical concept about the nature of FDI into SEE - 5 and EU - NMS - 10 countries.

Table 9: Estimation of the relationship between bilateral exports, FDI, trade cost and country characteristics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
VARIABLES	OLS	FE	RE	Robust OLS	Robust FE	Robust RE	Feasible GLS
Log bilateral FDI	0.164*** [10.63]	0.025** [2.02]	0.054*** [4.24]	0.164*** [10.14]	0.025 [1.53]	0.054*** [3.80]	0.164*** [10.68]
Log difference in GDP	0.452*** [20.81]	0.519*** [30.78]	0.504*** [28.96]	0.452*** [17.81]	0.519*** [18.57]	0.504*** [21.85]	0.452*** [20.90]
Log difference in GDPc	0.000 [0.03]	-0.004 [-0.51]	-0.005 [-0.55]	0.000 [0.05]	-0.004 [-0.81]	-0.005 [-0.82]	0.000 [0.03]
Log openness	-1.002*** [-10.67]	0.171 [1.01]	-0.607*** [-4.80]	-1.002*** [-9.54]	0.171 [0.93]	-0.607*** [-4.47]	-1.002*** [-10.72]
Log of trans	1.768***	1.002***	1.689***	1.768***	1.002***	1.689***	1.768***

progress	[6.63]	[3.67]	[6.74]	[7.05]	[3.77]	[7.30]	[6.66]
Log bilateral trade cost	-2.687*** [-29.29]	-2.884*** [-39.68]	-2.891*** [-38.82]	-2.687*** [-26.34]	-2.884*** [-25.89]	-2.891*** [-31.91]	-2.687*** [-29.41]
Log difference in skill	-0.044 [-0.99]	-0.119*** [-2.95]	-0.078* [-1.95]	-0.044 [-1.05]	-0.119** [-2.17]	-0.078** [-1.97]	-0.044 [-0.99]
Log difference in capital	-0.089 [-1.26]	0.245*** [3.73]	0.178*** [2.72]	-0.089 [-1.23]	0.245*** [3.48]	0.178** [2.48]	-0.089 [-1.27]
See Dummy variable	-0.819*** [-10.88]		-0.822*** [-7.01]	-0.819*** [-12.22]		-0.822*** [-6.83]	-0.819*** [-10.92]
Constant	8.146*** [7.02]	7.631*** [7.29]	6.574*** [6.46]	8.146*** [6.86]	7.631*** [6.32]	6.574*** [6.13]	8.146*** [7.05]
Observations	1,149	1,149	1,149	1,149	1,149	1,149	
R-squared	0.785	0.842		0.785	0.842		
R2-overall	.	0.679	0.764		0.679	0.764	
Number of groups		175	175		175	175	
Hausman Test		FE vs RE					
Chi (sq)		62.44					
p - value		[0.00]					

Notes: Dependent variable is log bilateral FDI flow. *t*-statistics in brackets, ***, ** and * indicate the significance of coefficients at 1, 5 and 10 percent, respectively.

Source: Authors' calculation.

Taken together, these findings, based on the size of the coefficients of country characteristics and trade cost and on the other hand on the relationship between FDI and exports, confirm that FDI into SEE - 5 and EU - NMS - 10 countries are both horizontally and vertically oriented. Hence, we provide a mixed evidence about the nature of FDI into SEE - 5 and EU - NMS - 10 countries. Considering country characteristics, the fact that the estimated coefficients of country specific factors and relative factor endowment differences are small, provided that trade costs are moderate to high confirm that countries are similar in size and relative factor endowments. Hence, on the grounds of country characteristics differences and trade cost, FDI and exports are substitutes and the nature of FDI in SEE - 5 and EU - NMS - 10, originated from EU - 14 countries is horizontal. This empirical finding supports Markusen *et al* (2005) model which suggest that FDI is horizontal when countries are similar in size and relative factor endowments. However, the positive relationship between FDI and exports, on the other hand, support the Helpman (1984), theoretical approach related the relationship between FDI and exports. Hence, FDI and exports in SEE - 5 and EU - NMS - 10 countries may be considered as a complement to each other and FDI as a vertical, when a positive relationship between FDI and exports, is confirmed.

5. Conclusions

The findings of the paper, suggest a broad support for the theory of both horizontal and vertical FDI. Linking the relationship between FDI and exports, with the country characteristics and trade costs, the results of the paper indicate that horizontal FDI is more likely to dominate when countries share similar market size and relative factor endowments; both at labor and capital base and trade costs are moderate to high. Hence FDI and trade (both exports and imports) are substitutes and FDI into SEE-5 and EU-NMS-10 countries are horizontally oriented. However, on the grounds of the relationship between FDI and trade (at both export and import level), the findings of the paper confirm that FDI into SEE-5 and EU-NMS-10 countries is vertically oriented, and hence FDI and trade (exports and imports) are complements. This finding support Helpman (1984) approach, related positive relationship between FDI and trade (exports and imports). Hence, the study provides mixed evidence about the nature of FDI in SEE - 5 and EU - NMS-10 countries, based on the grounds of country characteristics information and the relationship between FDI and trade.

References

1. Brainard, S. L. (1993). *An empirical assessment of the factor proportions explanation of multinational sales* (No. w4583). National Bureau of Economic Research.
2. Carr, David L., James R. Markusen, and Keith E. Maskus. "Estimating the knowledge-capital model of the multinational enterprise." *The American Economic Review* 91.3 (2001): 693-708.
3. Caves, R. E. (1971). International corporations: The industrial economics of foreign investment. *Economica*, 38(149), 1-27.
4. Dauti, B. (2016). Trade and foreign direct investment: Evidence from South East European countries and new European Union member states. *Zbornik radova Ekonomskog fakulteta u Rijeci: časopis za ekonomsku teoriju i praksu*, 34(1), 63-89.
5. Dunning, John H. *International Production and the Multinational Enterprise (RLE International Business)*. Routledge, 2012.
6. Ekholm, K., Forslid, R., & Markusen, J. R. (2007). Export-platform foreign direct investment. *Journal of the European Economic Association*, 5(4), 776-795.
7. Feenstra, R. C. (1998). Integration of trade and disintegration of production in the global economy. *The journal of economic perspectives*, 12(4), 31-50.
8. Hanson, G. H., Mataloni Jr, R. J., & Slaughter, M. J. (2005). Vertical production networks in multinational firms. *Review of Economics and statistics*, 87(4), 664-678.
9. Helpman, E., Melitz, M. J., & Yeaple, S. R. (2003). *Export versus FDI* (No. w9439). National Bureau of Economic Research.
10. Helpman, E. (1984). A simple theory of international trade with multinational corporations. *Journal of political economy*, 92(3), 451-471.
11. Helpman, E. (1985). Multinational corporations and trade structure. *The Review of Economic Studies*, 52(3), 443-457.
12. Helpman, E., & Krugman, P. R. (1985). *Market structure and foreign trade: Increasing returns, imperfect competition, and the international economy*. MIT press.
13. Lipsey, R. E., & Weiss, M. Y. (1981). Foreign production and exports in manufacturing industries. *The review of Economics and Statistics*, 488-494.
14. Lipsey, R. E., & Weiss, M. Y. (1984). Foreign production and exports of individual firms. *The Review of Economics and Statistics*, 304-308.

15. Markusen, J. R. (1984). Multinationals, multi-plant economies, and the gains from trade. *Journal of international economics*, 16(3-4), 205-226.
16. Markusen, J. R. (1998). Multinational firms, location, and trade. *The World Economy*, 21(6), 733-756.
17. Markusen, J. R., & Venables, A. J. (1998). Multinational firms and the new trade theory. *Journal of international economics*, 46(2), 183-203.
18. Markusen, J. R., Venables, A. J., Konan, D. E., & Zhang, K. H. (1996). *A unified treatment of horizontal direct investment, vertical direct investment, and the pattern of trade in goods and services* (No. w5696). National Bureau of Economic Research.
19. Ramstetter, E. D. (1991). US Direct investment in developing Asia and structural adjustment in the US manufacturing industry. *Direct Foreign Investment In Asia's Developing Economies And Structural Change In The Asia-Pacific Region*.
20. Svensson, R. (1996). Effects of overseas production on home country exports: evidence based on Swedish multinationals. *Review of World Economics*, 132(2), 304-329.
21. Shatz, H. J., & Venables, A. (2000). *The geography of international investment* (Vol. 2338). World Bank Publications.
22. Yi, K. M. (2003). Can vertical specialization explain the growth of world trade?. *Journal of political Economy*, 111(1), 52-102.