



The determinants of EU direct investment in the transition economies of Central and Eastern Europe: an empirical investigation

Papazoglou C.

in

Giannias D.A. (ed.), Mergos G. (ed.). Selected readings on economies in transition

Chania: CIHEAM

Cahiers Options Méditerranéennes; n. 44

2000

pages 173-181

Article available on line / Article disponible en ligne à l'adresse :

http://om.ciheam.org/article.php?IDPDF=800097

To cite this article / Pour citer cet article

Papazoglou C. The determinants of EU direct investment in the transition economies of Central and Eastern Europe: an empirical investigation. In: Giannias D.A. (ed.), Mergos G. (ed.). Selected readings on economies in transition. Chania: CIHEAM, 2000. p. 173-181 (Cahiers Options Méditerranéennes; n. 44)



http://www.ciheam.org/ http://om.ciheam.org/



THE DETERMINANTS OF EU DIRECT INVESTMENT IN THE TRANSITION ECONOMIES OF CENTRAL AND EASTERN EUROPE: AN EMPIRICAL INVESTIGATION

Christos Papazoglou,

University of Crete, Rethimno, Department of Economics, 74100; Bank of Greece, Economic Research Division, GR 102 50, Athens, Greece.

ABSTRACT

This paper aims to explain the dominant position of the European Union's (EU) direct investment flows in the Central and Eastern European (CEE) transition economies through an empirical investigation of their main determinants. The growth rates and the degree of indebtedness of the host countries, the strong bilateral trade relations and the geographical proximity between most of the countries of the two regions appear to be by far the most important determinants of such flows. Other factors, such as the cost of capital and labour costs together with the relative market size of the host countries, as well as the growth rates of the investing countries, also exert significant influence on the volume of EU investment in the region. In addition, the analysis shows that, as the transition process for most of the CEE economies comes to an end, foreign investment inflows towards these countries relate more to the general case that normally applies to developing countries (according to which economic performance and prospect, together with the comparative position of a country primarily matters), rather than to the progress of the privatization programs.

KEYWORDS:

DIRECT INVESTMENT, CEE ECONOMIES

1. INTRODUCTION

The European Union (EU) constitutes by far the most important consolidated foreign investor in the Central and Eastern European (CEE) transition economies. This can easily be deduced from Table 1 which refers to the Foreign Direct Investment (FDI) stock in most of these economies that originated from the EU, together with the corresponding share it accounted for in the years 1994 and 1995. In particular, the total EU investment into these countries reached USD 22490.4 million by the end of 1995, which corresponded to a share of 64% of the total stock. It accounted for about 66% or more of the FDI stock in most of the CEE economies. The shares of the EU countries were the highest in Hungary and Bulgaria, while the lowest were recorded in Moldova, and to a lesser extent in the Ukraine.

Undoubtedly, the large volume of EU investment towards the CEE transition economies has contributed significantly to the transformation process of those countries given the role that

FDI can play with respect to economic reform and development¹. It has been shown that countries, in particular developing ones, have been successful in attracting foreign investment, and have experienced higher rates of economic growth as well as easier passage towards economic reform. In addition, it manifests the close economic relations between the EU member states and the CEE countries which, in turn, are of vital importance to the economic development of the latter economies. Thus, the ascertainment of the main factors which have led to the growth of EU investment towards the CEE transition economies constitutes an issue of considerable significance to these countries.

TABLE 1. EU Direct Investment Stock in the CEE Transition Economies

Country	FDI Stock (millions USD)		Share of Total (%)	
	1994	1995	1994	1995
Bulgaria	356.9	374.8	76.4	72.4
Czech Rep.	1967.0	3748.0	64.9	67.1
Estonia	157.3	243.7	53.0	60.0
Hungary	7387.4	7493.2	74.1	73.4
Latvia	182.7	275.3	62.1	56.7
Lithuania	102.0	211.0	58.6	60.0
Moldova	16.8	22.6	67.7	25.9
Poland	1789.5	3869.3	63.0	63.1
Romania	609.2	814.1	53.7	51.0
Russian Fed.	1600.0	2776.4	47.6	50.2
Slovakia	337.4	476.4	65.3	67.6
Slovenia	1074.2	1867.4	65.9	67.6
Ukraine	156.6	318.2	42.7	42.4
Total	15737	22490.4	65.3	64.0

Source: UNESC/ECE.

This study aims to examine and analyze the factors that best explain FDI flows from the EU countries towards the CEE transition economies. That is, we shall provide an econometric analysis in order to test for the main determinants of FDI flows from each EU investing member state to each CEE host country. More specifically, we shall attempt to examine the relative importance of factors such as the economic growth in both regions, the bilateral trade relations, market size, relative labour costs, cost of capital and the privatization process, within the framework of a one-equation model.

The rest of the paper is organized as follows. In the next section we present our oneequation model together with the variable specification. The empirical results and the corresponding interpretation appear in section 3. Finally, the conclusions of our analysis are presented in section 4.

2. SPECIFICATION OF THE MODEL

In this section we proceed with the specification of the one-equation model together with the corresponding analysis which, by relying upon the conclusions of the underlying economic theory, explains the incorporation of the particular explanatory variables. The model consists of variables that refer to both the host as well as the investing countries.

More specifically, we propose the following one-equation model:

 $LFDI_{ijt} = a_0 + a_1 LGDPR_{jt} + a_2 GDPGT_{jt} + a_3 GDPGE_{it} + a_4 LTRTR_{ijt} + a_5 LWER_{jit} + a_6 LDGDPR_{jt} + a_6 LDGDPR_{j$ $LPSR_{jt} \, + \, a_8RB_{it} \, + \, a_9RD_{jt} \, + \, a_{10}D_{jt} \, + \, U_{ijt} \; , \\$

See UN/ECE (1994), Knirsch (1994), European Commission (1994), and Rojec (1994).

See Ozawa (1992) and Ranis (1976).

where subscripts i and j refer to EU member states and CEE transition economies respectively, while subscript t represents time. LFDI_{iit} denotes the logarithm of FDI flow from the EU state i into the CEE country j at time t. LGDPR_{it} is the logarithm of the ratio of the GDP of country j to the total GDP of all CEE economies taken together at time t. GDPGT_{it} is the difference between the GDP growth rate of country j and the corresponding average rate of all CEE transition economies at time t. GDPGEit is the difference between the GDP growth rate of country i and the average EU rate of growth at time t. LTRTRijt is the logarithm of the ratio of the bilateral trade (imports plus exports) between country i and country j to the total trade of country j at time t. LWER $_{jit}$ is the logarithm of the ratio of the nominal average monthly wage in country j to the nominal average monthly wage in the state i of the EU. LDGDPRit is the logarithm of the debt to GDP ratio in country j. LPSRjt is the logarithm of the private sector output to the GDP ratio in country j. RBit and RDjt represent the long-term real bond yield in country i and the real discount rate in country j respectively. Djt is a dummy variable that stands for geographical proximity and takes the value of D=0 for the CEE countries neighboring the EU, while D=1 denotes the others. Finally, U_{ijt} is the disturbance term.

The choice of variables in the above equation, on the one hand reflects the conclusions of the literature on the determinants of FDI while, on the other hand, takes specific characteristics of the transition economies into consideration. In addition, it must be noted that the manner in which the dependent variable is defined has affected the form of the independent variables included in the model. In the analysis that follows below, we proceed with the theoretical justification of the variables included in the model.

As indicated by Agarwal (1980), FDI is considered to be a function of output or sales of foreign firms in the host country. This is usually approximated by the size of the market - either the absolute, captured by the level of GDP or the relative, represented by the growth rate of GDP - of the host country. This hypothesis stems from the observation that, within a country, increases in investment spending take place in response to expanding sales, which in turn are associated with rising GDP. In the present analysis, we have included both the level and the growth rate of the GDP of the host countries, i.e. $LGDPR_{jt}$ and $GDPGT_{jt}$ respectively, in order to capture the market size effect and expect them to exert a positive impact on the EU investment flows 3 .

The growth rate of the investing countries, denoted by the term $\mathsf{GDPGE}_{\mathsf{it}}$, represents another scale variable that aims to capture the impact of the economic growth of the EU countries on their investment flows towards the CEE economies. The incorporation of the particular variable stems from the fact that we examine FDI flows that originate from specific countries whose course of economic activity may indirectly affect the ability of home firms to invest abroad by influencing their profitability. Thus we expect the particular variable to have a positive impact on the EU investment towards the CEE countries.

The close association between FDI and international trade is a historically established fact, which is supported by empirical evidence as well 6 . Trade and trade policies can exert various influences on the size, direction and composition of FDI flows. Overall, strong trade relations

2

Some studies, like the ones by Bandera and White (1968) and Reuber *et al.* (1973), have used or found the GDP level to be statistically significant, while other studies, such as those by Goldberg (1972) and Petrochilos (1989) for instance, have employed the GDP growth rate as a proxy for the market size. Others, see Wang and Swain (1995) for example, have used both measures.

Jeon (1992) and Wang and Swain (1995) have used the real growth of the home country as an explanatory variable for FDI and have shown that it exerts a statistically significant positive influence.

Note, however, that a negative impact cannot be ruled out. That is, a parent company may be looking for investment opportunities abroad if the growth rate of the home country is low. See also Wang and Swain (1995).

See Wilkins (1970, 1974).

constitute an important precondition for foreign investment 7 . That is, trade is less risky and easier than FDI and it can also be in any amounts, while foreign production requires a minimum size to be economically efficient. Foreign investors, in general, prefer liberal trade regimes, since they can produce goods not only for the domestic market of the host country but also for exporting to other nations as well. In our analysis, the term LTRTR $_{ijt}$ is used in order to investigate whether the investment flows by EU individual states in the CEE countries are indeed positively influenced by trade linkages.

The low cost of labour has always been a major factor in the location decision of foreign firms. In developing countries, in particular, the supply of cheap labour has been regarded as one of their comparative advantages in international trade. Wages in the CEE countries are quite low and as a result they are expected to play a significant role in the determination of FDI. The term LWER_{jit} is used to test whether wage differentials between the CEE countries and the EU states affect the flow of FDI from the latter to the former economies. The particular variable is expected to have a negative impact on EU investment.

The macroeconomic stability of the host countries constitutes an important consideration of any potential foreign investor. For most transition economies macroeconomic adjustment primarily focuses on the elimination of large debt overhangs which, in turn, would reduce pressure on fiscal and external accounts, attract private capital, and lay the foundations for sustained economic growth. Some CEE countries, particularly those in Central Europe, have pursued successful stabilization programs, which have enabled them to become more attractive to foreign investors. This, however, has not been the case with other CEE countries, which are still struggling to stabilize their economies. The term LDGDPR_{jt} in our model is used to capture the effect of indebtedness of the CEE economies on EU investment flows. We expect it to have a negative impact since a larger debt to GDP ratio undermines economic stability and thus it must discourage foreign investment.

At the beginning of the transition process, FDI in the CEE countries was closely associated with the privatization of public enterprises. Indeed, for most of these countries privatization programs were the major reason for large capital inflows, particularly during the 1989-93 period. Since then, however, the share of privatization related to FDI has declined considerably ¹⁰. Privatization can promote FDI flows either directly when state assets are sold to foreign investors or indirectly when, by signaling the commitment of a country, private ownership is able to attract additional investors ¹¹. In our model the term LPSRjt represents the private sector output to GDP ratio in each CEE country and is used to investigate the impact of the privatization process on the inflow of EU investment. It is expected to exert a positive influence.

Following Jorgenson's (1963) work on investment behavior, many empirical studies have investigated whether FDI is determined by the cost of capital. More recent studies include the ones by Petrochilos (1989) and Wang and Swain (1995). Following their conclusions, we have used two variables to test the cost of capital hypothesis. The first, denoted by the term RBit, is the real government long-term bond yield in the EU countries that aims to capture the long-term opportunities available to European investors in their home markets. The second, given by the term RDjt, denotes the real discount rate in the CEE countries and

See Wilkins (1974), Johanson and Vahnle (1993), and UN (1996, chapter III).

⁸ See Riedel (1975). Jeon (1992) has also shown that Korean investment in less developed countries has been considerably affected by the low labour costs in the latter countries.

We also tested whether wage differentials within the the CEE region affect EU investment towards individual countries. The results were not satisfactory and thus not reported. A similar pattern was found by Lansbury, Pain and Smidkova (1996).

See UN (1996).

See UN/ECE (1994).

measures the opportunity cost of borrowing in the host country, reflecting Aliber's (1978) findings, according to which foreign firms have a lower cost of capital when borrowing in the host country, given a strong home nation currency. In addition, it should be stated here that a notable difference between this study and the two others mentioned above is that in the present analysis we use real interest rates rather than nominal one as a more accurate measure of the opportunity cost of an investment decision. We expect both variables to have a negative effect on FDI flows.

Finally, the dummy variable D is used to capture the importance of geographical proximity. That is, we aim to test whether the fact that a number of the CEE economies are located in the backyard of the EU countries has a significant impact on the European investment flows towards these countries. In particular, we let the dummy variable take the value D=0 for the CEE economies which are adjacent to EU states and the value D=1 for the other countries of the region. We expect the dummy variable to exert a negative impact on the EU investment flows.

3. THE EMPIRICAL RESULTS

To carry out the econometric analysis, we pooled cross-section and time series data. More specifically, we used data that refer to the main FDI flows towards each of the CEE economies, which originated from individual EU countries during the years 1994 and 1995. The CEE countries we considered are the ones that appear in Table 1, except for Bulgaria, Moldova and the Russian Federation ¹². This allows us to have a total of 94 observations and thus conduct this detailed specification search. We assumed identical intercept for all the transition economies involved. The data are fitted into our one-equation model, which is estimated by ordinary least-squares (OLS) regression.

The empirical results of our estimation are presented in Table 2. We first estimated Equation 1, which contains all the independent variables proposed in the basic model. As can be seen, except for the variable capturing the private sector output to GDP ratio, LPSR, all other parameters appear to have the expected signs. The LPSR variable is then dropped in equation 2, which constitutes our preferred equation since all included variables are statistically significant and have the correct signs.

Let us now turn to the interpretation of our results starting with the three scale variables included in the model. First, with respect to the two variables capturing the size of the market hypothesis for the CEE economies, we see that both the level and rate of growth of the GDP, denoted by LGDPR and GDPGT respectively, appear to be a significant determinant of EU investment. That is, our findings suggest that EU direct investment in the CEE countries is associated with the current market size as well as the growth prospects of the latter economies. In particular, the growth rate of the host countries appears to be the most important determinant of EU investment in the region. This is consistent with the results of a recent analysis in UN (1996, chapter II), which shows that economic growth and FDI inflows in the CEE economies are closely linked. This, in turn, reflects the fact that in most CEE economies, non-privatization related inflows which, among other things, are more responsive to better growth performance, have started playing a more dominant role. Finally, the third scale variable refers to the growth rate of the EU countries, GDPGE, which can also be seen to exert a statistically significant positive influence. This seems to suggest that the real growth rates of the EU countries represent an important determinant of their investment in the CEE economies.

-

We did not include these three countries because of lack of sufficient data.

TABLE 2. Empirical Results*

Variable	Equation 1	Equation 2
Constant	-4.19	-3.54
	(-4.85)	(-5.86)
LGDPR _{jt}	0.12	0.13
	(1.9)	(2.03)
$GDPGT_{jt}$	0.13	0.14
	(8.81)	(9.07)
GDPGE _{it}	0.12	0.11
	(3.57)	(3.41)
LTRTR _{ijt}	0.41	0.41
	(7.0)	(6.96)
$LWER_{jit}$	-1.0	-0.82
	(-3.28)	(-3.24)
LDGDPR _{jt}	-0.67	-0.59
	(-5.07)	(-5.3)
LPSR _{jt}	-0.34	
	(-1.1)	
RB_{it}	-0.1	-0.1
	(-2.52)	(-2.66)
RD_{jt}	-0.001	-0.002
	(-0.96)	(-2.19)
D	-2.73	-2.47
	(-6.93)	(-8.09)
R^2	0.83	0.83
Adj. R ²	0.81	0.81
D-W	2.22	2.23

^{*} t-statistics in parentheses

Next, our results overwhelmingly support the close association between FDI and international trade. Trade between the EU member states and the CEE economies, denoted by LTRTR, represents an important determinant of EU investment in the region. As a matter of fact, the EU is the dominant trading partner for all CEE countries and in that sense the pattern of international trade in the CEE economies exactly reflects the FDI pattern. More specifically, trade between the CEE countries and the EU member states accounted for 55% of the total trade of the CEE economies in 1995. Note that in 1989 trade with the EU did not exceed 30% of the total trade of these economies ¹³ Undoubtedly, this quick reorientation of international trade for most CEE economies towards the EU countries constituted a vital step for the development of FDI flows from the latter countries to the former which, in turn, led to additional trade. As a matter of fact, these strong bilateral trade linkages are primarily the result of intra-firm trade flows between EU parent firms and their CEE affiliates while, at the same time, reflecting the importance of the region as a production base for exports to the European Union ¹⁴.

Furthermore, our results seem to indicate that wage differentials between the countries of the two regions, captured by LWER, exert significant influence on the foreign investment of European firms towards the CEE economies. That is, the lower wages in the CEE region must be associated with reduced labour unit costs which, in turn, constitute a considerable advantage that helps them attract EU direct investment. As a result, our findings are in line with the standard theories of FDI which, among other things, stress the importance of

 $^{^{13}}$ We exclude the Russian Federation. Note that for the transition economies of Central Europe, the corresponding share is well over 60%.

See UN (1996, chapter II).

relative costs in location decisions 15.

The degree of indebtedness of the CEE economies, denoted by LDGDPR, corresponds to another very important determinant of EU investment. This result indicates that CEE economies with lower debt overhangs present better prospects for economic stability and growth, and thus are perceived as lower risk countries which, in turn, enables them to attract higher portions of EU investment.

In addition, our findings suggest that the privatization process, captured by the private sector output to GDP ratio denoted by the term LPSR, did not exert significant influence on EU investment in the CEE economies during the 1994-95 period. This reflects the fact that the share of FDI received by CEE economies from the privatization of public enterprises has declined considerably during 1994-95 in comparison with the 1989-93 period when, for the main recipient countries, privatization related inflows accounted for most FDI¹⁶. This is further strengthened by the observation that the more advanced economies of Central Europe, which constitute by far the majority of the countries included in our sample, are well into the transition process; as a result, they relate more to the general case in which the bulk of FDI inflows into a country is not linked to the progress of a privatization program¹⁷.

Turning to the two variables that capture the cost of capital hypothesis, we see that both are statistically significant and have influenced the inflow of EU investment in the CEE economies to a great extent. This result is in accordance with Jorgenson's hypothesis that FDI is determined by the cost of capital. First, with respect to the real long-term bond yield of the home countries (RB), our result suggests that it constitutes an important alternative to investing abroad. Next, the fact that the real discount rate of the host countries (RD) appears statistically significant means that foreign investors rely on local markets to finance at least part of their projects and thus the terms of such financing have affected the volume of EU investment.

Finally, the statistical evidence indicates that geographical proximity, denoted by the dummy variable D, represents a very important determinant which exerts significant influence on the EU investment towards the CEE economies. That is, the fact that some of the CEE economies are adjacent to EU countries has given certain advantages to European investors, which, in turn, constitute an additional motive for them to move into these countries. In particular, it appears that there is significant information as well as cost advantages resulting from the proximity of the two regions, which permits European investors to be in a more competitive position relative to other potential investors. As a result, it further contributes to the dominant position of EU investment in the region.

4. SUMMARY AND CONCLUSIONS

In this paper we attempted to identify the major factors that led to the dominant position of EU direct investment in the CEE transition economies. More specifically, we estimated a one-equation model, which included as explanatory variables all possible FDI determinants that are dictated by the underlying economic theory. We believe that our analysis has reached very definite conclusions concerning the main determinants of EU investment in the region.

. .

For similar conclusions, see Lansbury, Pain and Smidkova (1996) and Wang and Swain (1995).

See UN (1996). Also, an empirical study by Lansbury, Pain and Smidkova (1996) on FDI determinants in Central Europe found privatization to have a significant positive impact during the 1991-93 period.

This is not true for other CEE countries since it is a fact that privatization has proceeded at a very uneven pace with the majority of the Eastern European countries lagging well behind the more advanced economies of Central Europe; see UN/ECE (1994). This is also supported by an empirical study conducted by Papazoglou and Liargovas (1997). They showed that, during the 1993-95 period, FDI inflows in the Black Sea Economic Cooperation transition economies were influenced by the progress of these countries towards privatization.

More specifically, our analysis revealed a number of factors that have been quite important to EU investment in the CEE economies. By far, the most important ones refer to the growth rates and degree of indebtedness of the CEE economies as well as to the strong trade relations and the geographical proximity between the countries of the two regions. The of capital, labour costs, the size of the domestic markets in the CEE countries and the growth rates of the EU investing states also constitute important factors that help explain the pattern of EU investment in the region.

These results together with the finding that privatization is not any more the driving force of foreign investment in the CEE transition economies reflect the fact that, as the transformation process for most of these economies comes to an end, the criteria for undertaking foreign investment are primarily related to economic performance and comparative position of these countries, and thus they approach the ones that usually apply to developing economies.

Finally, we also believe that the findings of the paper quite successfully explain the pattern of EU direct investment within the CEE region. More specifically, we see that the more advanced economies of Central Europe, such as the Czech Republic, Hungary and Poland for instance, which are characterized by stronger trade linkages with the EU countries (trade with EU member states accounted for more than 60% of total trade in all three nations during 1995) and better economic performance in terms of growth, as well as of macroeconomic stability and geographical proximity with the EU, have been able to attract considerably more European investment than the other countries of the region, as Table 1 indicates. On the other hand, more remote countries like Romania and Ukraine which, at the same time, appear to have much lower economic performance and weaker trade relations with the EU states, have not succeeded in bringing in significant amounts of European investment¹⁸.

REFERENCES

Agarwal, J. (1980). "Determinants of Foreign Direct Investment: A Survey" Weltwirtschaftliches Archiv, Vol. 116, pp. 739-773.

Aliber, R. Z. (1978). Exchange Risk and Corporate International Finance. London, Macmillan.

European Commission (1994). European Economy. No 6, Chapter 4.

Bandera, V. N. and J.T. White (1968). "U.S. Direct Investments and Domestic Markets in Europe". Economia Internazionale, Vol. 21, pp. 117-133.

Goldberg, B. A. (1972). "Determinants of U.S. Direct Investment in the EEC: Comment". American Economic Review, Vol. 62, pp.692-699.

Jeon, Y.D. (1992). "The Determinants of Korean Foreign Direct Investment in Manufacturing Industries". Weltwirtschaftliches Archiv, Vol. 128, pp. 527-541.

Johanson, J. and Vahnle, J.E. (1993). "The Internationalization of the Firm - a Model of Knowledge Development and Increasing Foreign Market Commitments". In P.J. Buckley and P. Ghauri (eds.), The Internationalization of the Firm, London, Academic Press.

Jorgenson, D.W. (1963). "Capital Theory and Investment Behaviour". American Economic Review, Vol. 53, pp.247-259.

Knirsch, P. (1994). "Foreign Direct Investment and the Reconstruction of the Economies of Central Europe". Acia Oeconomica, Vol. 46, pp. 371-380.

Lansbury, M., N. Pain and K. Smidkova (1996). "Foreign Direct Investment in Central Europe since 1990: An Econometric Study". National Institute Economic Review, May, pp. 104-113.

Ozawa, T. (1992). "Foreign Direct Investment and Economic Development". Transnational Corporations, 1,1.

Papazoglou, C. and P. Liargovas (1997). "An Assessment of Foreign Direct Investment Towards the

The share of Ukraine's trade with the EU states was less than 20% of its total trade in 1995. Romania, on the other hand, has much stronger trade links with the EU countries, with its corresponding share being around

- BSEC Transition Economies". Economia Internazionale, Vol. L, 3, pp. 475-487.
- Petrochilos, G. A. (1989). Foreign Direct Investment and the Development Process: The Case of Greece. Anebury, Cower Publishing Company Ltd.
- Ranis, G. (1976). "The Multinational Corporation as an Instrument of Development". In Apter D. and Goodman L. (eds.), *The MNC and Social Change*, New York, Praeger Publishers.
- Reuber, G., Crokellel, H., Emersen, M. and Gallias-Hamono, G. (1973). Private Foreign Investment in Development. Development Center of the OECD, Oxford.
- Riedel, J. (1975). "The Nature and Determinants of Export-Oriented Direct Foreign Investment in a Developing Country: A Case Study of Taiwan". Weltwirtschaftliches Archiv, Vol. III, pp. 505-528.
- Rojec, Matija (1994). "Foreign Direct Investment in the Transformation Process". *Development & International Co-operation*, 10, 18 (June), pp. 5-26.
- United Nations (1996). World Investment Report 1996: Investment, Trade and International Policy Arrangements. Geneva, United Nations, United Nations Publications.
- United Nations Economic Commission for Europe (UN/ECE) (1994). "Foreign Direct Investment in the Transition Economies, 1990-1994". *Economic Bulletin for Europe*, 46, pp.117-131.
- United Nations Economic and Social Council Economic Commission for Europe (UNESC/ECE) (1996). Statistical Survey of Recent Trends in Foreign Investment in East European Countries. Geneva, United Nations, United Nations Publications.
- Wang, Z.Q. and Swain, N. (1995). "The Determinants of Foreign Direct Investment in Transforming Economies: Empirical Evidence for Hungary and China". Weltwirtschaftliches Archiv, Vol. 131, pp. 359-382.
- Wilkins, M. (1970). The Emergence of Multinational Enterprise: American Business Abroad from the Colonial Era to 1914. Cambridge, Mass.
- Wilkins, M. (1974). The Maturing of Multinational Enterprise: American Business Abroad 1914-1970. Cambridge, Mass.