

Rapacki, Ryszard

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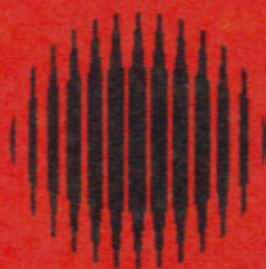
THE ROLE OF LICENSING IN THE STRATEGY OF WESTERN FIRMS IN THE EASTERN EUROPEAN MARKETS: THE CASE OF POLAND

by

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CENTRAL SCHOOL OF PLANNING AND STATISTICS
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Ryszard Rapacki

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Associate Professor
Department of Foreign Trade
Central School of Planning
and Statistics

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Central School of Planning and Statistics
Al. Niepodleglosci 164, 02-554 Warsaw, Poland

1. INTRODUCTION

Licensing an independent company abroad has usually been considered as one of the alternative options in firms' strategy aimed at entering foreign markets. For some authors there has been the temporal sequence in adopting different methods of foreign expansion licensing being either the preliminary /Aharoni, 1966, Perlmutter, 1969/ or intermediary stage /Rugman, 1980/ in this process. Mirsch /1967/, Parker /1978/ and Casson /1979/ elaborated models of interrelationships - in their simplified form - between exports, licensing and direct foreign investment and shed some new light on basic determinants affecting the choice among them. If one accepts the widely recognized concept of the technologically-based competitive advantage /Hymer, 1960/ it becomes clear why licensing has constituted the least preferred option in this choice /see e.g. Parker, 1978/. It also explains the strong trend towards internalization of the competitive advantage by means of wholly-owned foreign subsidiaries /Buckley and Casson, 1976/.

Despite the high concentration of licensing flows within multinational enterprise (MNEs)^{1/} in many instances licensing has been considered the most preferred strategic option in entering foreign markets. The most frequent cases here have been the following:

- 1) High research-intensity of a company /see, e.g. Franko, 1969, Teece, 1977, Crookell, 1981, Contractor, 1981/;
- 2) Diversification of the product line /Telesio, 1977/;
- 3) Small relative size of a firm /Stobaugh, 1968, Stopford, Wells Jr., 1972/;
- 4) Limited experience in foreign activities /Baranson, 1970, Zengoff, 1970/;
- 5) Reciprocity in technology exchange /Telesio, 1979/;
- 6) Progressive standardization in the product cycle /Telesio, 1977, Contractor, 1981/;

1/ Recent studies by Telesio /1979/ and Contractor /1981/ seem to indicate that this trend has to some extent been reverted.

- 7) Restriction on foreign direct investment /Dayden, 1976/;
- 8) Import restrictions;
- 9) High rate of technological changes;
- 10) Perpetuation of licensee's dependence;
- 11) Creation of the "selective" competition /Contractor, 1981/;
- 12) Creation of additional sources of revenues /Contractor, 1983/.

Out of all the above factors motives 9), 5), 1), 2) and 4) seem to be of greatest relative importance.

The above model applies principally to economies where at least two basic preconditions are met, i.e. internalization is a real option and in leading industries oligopolistic competition prevails. Since, apart from fundamental systemic differences, the economic environment in centrally-planned economies displays two important features, i.e. there is a ban on fully or majority-owned foreign subsidiaries and market conduct is far from being oligopolistic, one may expect that the pattern of MNEs' (and other Western firms') activities in socialist countries will substantially vary from that prevailing in market economies. More specifically, it is reasonable to think that in absence of the internalization alternative and of strong oligopolistic pressure in host countries Western firms will adopt a modified set of methods aimed at protecting their competitive advantage. In particular the importance of licensing in their foreign expansion towards socialist countries should considerably increase.

The aims of this paper are to examine the role of licensing in the strategy of Western firms aimed at increasing their share in East European markets and to establish the pattern of their licensing policy pursued there. It is also expected that, as a by-product of this study, some other important features of East-West trade in licences will be found out. The following hypotheses will be tested:

- 1) in view of the lack of the internalization option the high content of restrictive clauses in licensing agreements has become an important means of protecting the competitive advantage of Western firms in centrally-planned economies,

- 2) the set and hierarchy of motives influencing Western firms' decisions concerning the sales of licences to socialist countries significantly differ from the general pattern described above.

The paper has been based on an empirical study covering a sample of 410 licensing agreements concluded in Poland with 349 Western companies during 1971-1980 period. They represent approximately 66% of the number and 82% of the value (total of the lump sum and royalties) of all licences Poland purchased in the West since the War.^{2/} The two basic variables, partly analysed in other studies, i.e. the content of certain contract clauses in licence agreements /Cieřlik, Rapacki, 1981/ and characteristics of Western licensors /Cieřlik, Sosnowski, 1985/ have been adopted. Subsequently an attempt to find out a correlation between them has been made. The following contract clauses have been examined:

- 1) the scale of Western technology diffusion in the host country,
- 2) licensor's and licensee's commitments to exchange improvements,
- 3) export restrictions,
- 4) nature of licence rights,
- 5) right to use licensor's trade mark,
- 6) right to sub-licence.

In turn two features of Western licensors have been taken into consideration: 1) their size, measured by the number of employees and 2) their internationalization, expressed in the number of countries where majority-owned subsidiaries have been established. The following sub-groups have been singled out: small enterprises - up to 500 employees, medium-sized enterprises - 501-2000 and 2001-10 000, large enterprises - over 10 000 employees and respectively - national firms - 0 countries, medium-internationalized firms - 1-2 and 3-5 countries and multinational firms - over 5 countries.

As it was impossible to scrutinize licensing agreements directly information provided by the Foreign Trade Data Centre has been used. This constituted a serious limitation of the study - in many cases we failed

2/ Owing to differences in contract terms annexes to already existing agreements have been treated as separate contracts.

to obtain information on some contract clauses analysed. Consequently agreements in which such an information was not available have been excluded from the sample. As a result the number of agreements being the basis for computations and subsequent conclusions vary from table to table. The differences are not, however, statistically significant.

2. EMPIRICAL FINDINGS

According to some estimates /Wilczyński, 1976/ MNEs supply up to 80-90% of all licences sold in the world. The picture of Polish licensors' characteristics provided in Table 1 reveals several striking differences when compared to this general pattern. Firstly, the role of large MNEs as suppliers of technology to Poland has been substantially smaller - their share amounted to 41,5% of all licences purchased (62,1% in value terms). Secondly, the importance of small national firms (NEs) has been significantly greater. If we realistically assume that all data which had not been available refers to this class of companies (as less known) their share in Polish imports of licences amounts to 28% (volume) and 12,9% (value).

Table 2 reveals interesting interrelations between the size and internationalization of licensors' firms and the content of restrictions imposed on the range of imported technology diffusion in Poland. The small NEs and - to much lesser degree - large MNEs have pursued the most liberal policies in this respect. There are two possible explanations for this.

On the one hand the small NEs might strive to complement their limited resources by means of closer links with the licensee. Licensing has frequently constituted the only (sometimes auxiliary to exports) source of revenues from foreign activities for them. In view of their non-involvement in international production (using Dunning's words) the diffusion of their technology in the host country created no serious threat to their competitive position.

On the other hand, in the case of large MNEs, with established market positions, this threat has - for different reasons - again not been

Table 1.

Polish imports of licences from the West by size and internationalization of licensors' firms

Internationalization	Size ^{a/} : up to 500			501-2000			2001-10000			over 10000			N.s.			TOTAL		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
0	35	8,5	2,0	15	3,9	1,7	3	0,7	0,1	2	0,5	0,9	21	5,1	1,5	77	18,8	6,3
1-2	7	1,7	0,2	6	1,5	1,9	3	0,7	2,1	2	0,5	0,1	9	2,2	0,3	27	8,8	4,5
3-5	4	1,0	0,1	7	1,7	0,6	9	2,2	1,3	7	1,7	0,6	1	0,2	0,0	28	6,8	2,6
≥5	4	1,0	0,2	8	1,9	1,0	33	8,0	13,2	170	41,5	62,1	4	1,0	0,6	219	53,4	77,1
N.s.	-	-	-	-	-	-	-	-	-	-	-	-	59	14,4	9,4	59	14,4	9,4
Total	50	12,2	2,6	37	9,0	5,2	48	11,7	16,7	181	44,1	53,6	94	22,9	11,8	410	100,0	100,0

a/ in case of foreign subsidiaries, measured by number of employees in the whole company /parent and its affiliates/.

b/ number of countries where foreign subsidiaries are located.

N.s. - data not available.

A - number of contracts.

B - % of the total number of contracts.

C - % of the total value of contracts /total of the lump sum and royalties/.

Source: Own computations based on Foreign Trade Data Centre data.

Table 2.

The range of diffusion rights by size and internationalization of licensors' firms.

SIZE ^a	In a given enterprise			In any chosen enterprise			Total		
	A	B	C	A	B	C	A	B	C
up to 500	12	25,5	16,2	35	74,5	83,8	47	100,0	100,0
501-200	16	44,4	34,7	20	55,5	65,3	36	100,0	100,0
2001-10000	22	48,9	82,3	23	51,1	17,7	45	100,0	100,0
over 10000	72	42,9	42,6	96	57,1	57,4	168	100,0	100,0
N.a.	31	35,2	19,9	57	64,8	80,1	88	100,0	100,0
INTERNATIONALIZATION ^b									
0	20	27,4	31,6	53	72,6	68,4	73	100,0	100,0
1-2	15	55,5	52,2	12	44,5	47,8	27	100,0	100,0
3-5	10	38,5	29,8	16	61,5	70,2	26	100,0	100,0
≥6	89	43,6	50,7	115	58,4	49,3	204	100,0	100,0
N.a.	19	35,2	13,1	35	64,8	86,5	54	100,0	100,0
Total	153	39,8	45,6	231	60,2	54,4	384	100,0	100,0

a, b, A, B, C - as in Table 1.

Source: Own computations based on Foreign Trade Data Centre data.

strongly felt. It might be additionally due to the fact that - as it will be separately discussed later - the age of technology transferred to Poland has in many cases been much below not only the present technological level of the licensor but also below the world standards.

Generally speaking the fact that approximately 60% of contracts contained no restrictions of the scale of diffusion seems to testify to the marginal importance of the Polish (and more generally - COMECON countries') market in the strategy of Western companies. Only beginners in the foreign expansion process, i.e. firms with subsidiaries in 1-2 countries, constituted the exception to this rule.

If one attempts to understand the role of licensing in the strategy of Western firms vis-a-vis socialist countries, the analysis of contract clauses regulating the range of post-licence co-operation may be very useful (Tables 3 and 4). A close look at the content of these clauses leads to several interesting observations. Firstly, as a general feature one may notice the remarkable disparity in the range of partners' commitments to provide improvements to the other party. This probably reflects the higher research-intensity and greater innovative potential of Western firms than their Polish counterparts (see, Cieřlik, Rapacki, 1981/).

Secondly, the structure of contract terms is relatively disadvantageous for Polish licensees. In 3/4 of all agreements analysed they can not get access to newer generations of licensor's technology unless they pay an extra fee. Instead, in nearly 55% of cases they are obliged to provide their improvements free of charge. Thanks to such contract clauses Western companies have undoubtedly gained an additional source of foreign exchange earnings complementing their financial resources. Simultaneously they have also gained a tool for making the licensee technologically dependent.

Thirdly, both extreme groups, i.e. small NEs and large MNEs, display the greatest divergence from the average. The small NEs have revealed the highest share of clauses imposing no commitments to both provide to and receive improvements from the licensee (the correlation being stronger for firms' size than for the extent of their internationalization).

Table 3.

The range of licensor's commitments to provide improvements by size and internationalization of licensors' firms.

SIZE ^a	Not bound to provide improvements			Bound to provide improvements						Total		
	A			Free of charge			On fee basis			A	B	C
	A	B	C	A	B	C	A	B	C	A	B	C
up to 500	8	16,3	4,9	10	20,4	22,1	31	63,3	73,0	49	100,0	100,0
501-2000	3	8,1	-	7	18,9	19,8	27	73,0	80,2	37	100,0	100,0
2001-10000	4	8,9	0,2	3	6,7	0,6	38	84,4	99,2	45	100,0	100,0
over 10000	17	9,7	9,1	28	15,9	25,4	131	74,4	85,5	176	100,0	100,0
N.s.	8	8,8	3,8	9	9,9	2,0	74	81,3	94,2	91	100,0	100,0
INTERNATIONALIZATION ^b												
0	9	12,2	5,3	15	20,3	20,7	50	67,6	74,0	74	100,0	100,0
1-2	5	19,5	2,1	1	3,7	-	21	77,8	97,9	27	100,0	100,0
3-5	3	11,1	0,4	3	11,1	3,4	21	77,8	98,2	27	100,0	100,0
≥6	18	8,5	7,3	33	15,6	21,6	181	75,9	71,1	212	100,0	100,0
N.s.	5	8,8	3,8	5	8,5	1,9	48	82,8	94,2	58	100,0	100,0
Total	40	10,1	6,4	57	14,3	18,1	301	75,6	75,5	398	100,0	100,0

a, b, A, B, C - as in Table 1.

Source: Own calculations based on Foreign Trade Data Centre data.

Table 4.

The range of licensee's commitments to provide improvements by size and internationalization of licensors' firms

	Not bound to provide improvements			Bound to provide improvements						Total		
	A B C			Free of charge			On fee basis			A	B	C
				A	B	C	A	B	C			
SIZE ^a												
up to 500	18	40,9	22,4	24	54,5	56,8	2	5,6	10,8	44	100,0	100,0
501-2000	10	27,8	8,4	23	63,9	52,7	3	8,3	38,9	36	100,0	100,0
2001-10000	13	29,5	81,0	28	63,6	18,1	3	6,9	0,9	44	100,0	100,0
over 10000	51	30,2	31,9	96	56,8	58,5	22	13,0	9,6	169	100,0	100,0
N.a.	41	45,5	28,8	41	45,5	67,9	8	9,0	3,3	90	100,0	100,0
INTERNATIONALIZATION ^b												
0	25	35,2	24,6	40	56,3	56,4	6	8,5	9,0	71	100,0	100,0
1-2	11	44,0	43,6	12	48,0	18,7	2	8,0	37,7	25	100,0	100,0
3-5	8	32,0	24,8	17	58,0	75,2	-	-	-	25	100,0	100,0
≥6	62	30,2	41,4	118	57,6	50,7	25	12,4	8,1	205	100,0	100,0
N.a.	27	47,4	24,6	25	43,9	72,6	5	8,7	2,8	57	100,0	100,0
Total	133	34,4	38,3	212	54,8	52,8	38	9,8	8,9	383	100,0	100,0

a, b, A, B, C as in Table 1.

Source: Own calculations based on Foreign Trade Data Centre data.

The small NEs have also had the highest share of clauses with free of charge transfer of improvements to the licensee and lowest - clauses on fee basis. The structure of contract terms has been reverse in case of large MNEs. In the agreements concluded with them the content of clauses containing no commitments to exchange improvements in both directions has been the lowest (the correlation being particularly strong in case of internationalization). Companies of this group have also displayed the greatest propensity to furnish their improvements to their Polish counterpart free of charge and simultaneously - to take them from the licensee on fee basis.

One of the most important variables enabling to shed some light on motives of Western firms' expansion into markets of the COMECON countries are export restrictions in licensing agreements. Unfortunately trends which are marked in this case have not been clear enough to enable univocal, convincing generalizations. Nevertheless certain identified interrelationships do suggest a number of hypotheses. In the first place one should notice that in agreements with large MNEs the total ban of exports has been relatively rare (this indice has been lower only for firms employing 501-2000 persons and producing in 1-2 countries). It may mean that their international market position has been so strong that they have not feared of losing their competitive advantage in favour of the licensee. On the other hand the MNEs (of different size) have adopted with the highest relative frequency selective export restrictions (i.e. the ban of access to markets of the vital importance to the licensor). The contract clauses of this sort may be seen as an additional protection against the potential competition of the licensee.

Secondly, the most restrictive policy with regard to licensee's exports has been pursued by medium firms (2001-10 000 employees, subsidiaries in 3-5 countries). In contracts concluded with them the total ban of exports has been the most frequent case. Simultaneously, the lowest has been the share of contract provisions containing no export restrictions.^{3/}

3/ In case of medium-sized companies the almost total lack of corre-

Finally, small NEs have displayed the highest share of contract clauses imposing no export restrictions. This proportion seems to confirm the assertion formulated earlier that licensing fees constituted in many cases the only source of foreign earnings and licensing - the only form of contact with foreign markets for those firms. Hence, the exports of goods produced by the licensee created no threat for the licensor.

The competitive position of the licensor may be additionally strengthened - apart from export restrictions - by means of other contract provisions such as e.g. nature of licence rights (exclusive or non-exclusive), access to licensor's trade mark and the right to sub-licence (Tables 6-8).

Table 6 reveals the existence of strong correlation between the size of companies and the nature of licence rights - the bigger is the size of licensors' firms the higher is the share of contracts of the exclusive type, while the share of non-exclusive licences decreases. This correlation has been much weaker in case of internationalization - the highest share of exclusive licence rights was marked in the two extreme groups, i.e. in NEs and MNEs. The above properties of Poland's licence trade with the West may suggest that large MNEs have felt the relatively weak pressure of licensing many independent firms abroad parallelly (control over resources in many countries, diversified sources of revenues), with a view to maximize their profits. Instead, as data in table 6 seem to prove, this pressure has been strongly felt in medium-internationalized companies (1-5 countries) and particularly - small and medium-sized (up to 2000 employees).

If one attempts to comment the general picture which emerges from table 6 the relatively high, amounting to nearly 40% of the total, share of exclusive licences should be stressed. The share in question diverges significantly from international standards; the major part of licences traded in the world are of the non-exclusive type. Two possible

lation between indices referring to volume and value must be stressed. It would be difficult, however, to provide the convincing explanation of this phenomenon while relying only on data possessed.

Table 5.

Export restrictions by size and internationalization of licensors' firms.

	Total export ban			Export allowed only to socialist countries			Specified countries excluded			No restrictions			Total		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
SIZE ^a															
up to 500	5	10,2	5,9	10	20,4	20,5	27	55,1	52,3	7	14,3	7,3	49	100,0	100,0
501-2000	2	5,4	0,4	8	21,6	17,1	22	59,4	43,7	5	13,6	38,8	37	100,0	100,0
2001-10000	5	12,6	3,5	0	17,0	5,3	29	61,7	30,6	4	8,5	50,5	47	100,0	100,0
over 10000	10	5,7	0,7	40	23,0	22,1	100	57,5	63,1	24	13,5	14,1	174	100,0	100,0
N.a.	11	12,2	2,9	16	20,0	53,6	40	44,4	30,5	21	28,3	12,0	90	100,0	100,0
INTERNATIONALIZATION ^b															
0	5	5,8	1,7	17	23,0	17,4	41	55,4	65,7	11	14,9	15,2	74	100,0	100,0
1-2	-	-	-	5	20,0	11,5	15	50,0	51,8	5	20,0	35,7	25	100,0	100,0
3-5	5	22,2	24,9	5	18,5	29,0	14	51,8	38,0	2	7,4	8,1	27	100,0	100,0
≥6	13	5,1	0,7	46	21,6	18,5	127	59,6	55,1	27	12,8	24,5	213	100,0	100,0
N.a.	10	17,2	2,7	11	19,0	62,5	21	36,2	23,7	16	27,5	11,0	58	100,0	100,0
Total	34	5,5	1,5	84	21,1	22,8	210	54,9	52,5	61	15,4	22,9	397	100,0	100,0

a. b, A, B, C as in Table 1.

Source: Own calculations based on Foreign Trade Data Centre data.

Table 6.

Nature of licence rights by size and internationalization by licensors' firms.

SIZE ^a	Exclusive rights			Non-exclusive			Total		
	A	B	C	A	B	C	A	B	C
up to 500	16	34,0	40,3	31	66,0	59,7	47	100,0	100,0
501-2000	12	35,3	71,4	22	64,7	28,6	34	100,0	100,0
2001-10000	17	40,5	22,3	25	59,5	77,7	42	100,0	100,0
over 10000	71	42,5	54,1	96	57,5	45,9	167	100,0	100,0
N.a.	30	35,3	56,3	55	64,7	43,7	85	100,0	100,0
INTERNATIO- NALIZATION ^b									
0	30	42,9	48,1	40	57,1	51,9	70	100,0	100,0
1-2	8	29,6	89,8	19	70,4	10,2	27	100,0	100,0
3-5	9	39,1	33,0	14	60,9	67,0	23	100,0	100,0
≥6	82	41,0	45,5	118	59,0	54,5	200	100,0	100,0
N.a.	17	30,9	62,5	38	69,1	37,5	55	100,0	100,0
Total	146	38,9	49,3	229	61,1	50,7	375	100,0	100,0

a, b, A, B, C - as in Table 1.

Source: Own calculations based on Foreign Trade Data Centre data.

Table 7.

Right to use the licensor's trade mark by size and internationalization of licensors' firms.

SIZE ^a	Right to use			No right to use			Total		
	A	B	C	A	B	C	A	B	C
up to 500	35	79,5	84,1	9	20,5	15,9	44	100,0	100,0
501-2000	32	80,9	96,9	4	11,1	3,1	36	100,0	100,0
2001-10000	35	85,4	83,5	6	14,5	16,5	41	100,0	100,0
over 10000	119	77,3	82,6	36	22,7	37,4	154	100,0	100,0
N.a.	71	86,6	88,5	11	13,4	11,5	82	100,0	100,0
INTERNATIO- NALIZATION ^b									
0	60	82,2	88,7	13	17,8	11,3	73	100,0	100,0
1-2	20	80,0	98,7	5	20,0	1,3	25	100,0	100,0
3-5	21	91,3	32,3	3	8,7	67,7	24	100,0	100,0
≥6	150	80,6	71,7	36	19,4	28,3	186	100,0	100,0
N.a.	41	83,7	86,5	8	16,3	13,5	49	100,0	100,0
Total	292	81,8	68,1	65	18,2	31,8	357	100,0	100,0

a, b, A, B, C - as in Table 1.

Source: Own calculations based on Foreign Trade Data Centre data.

explanations for this divergence are worth considering. On the one hand if, as one might suspect, the technology licensed has been in many cases relatively obsolete and the demand for it in the world market has been declining the exclusive character of many licences granted in Poland can be partly attributed to the absence of other, alternative licensees. On the other hand exclusive licences which as a rule generate stronger links between the partners may be seen as a vehicle for making the licensee technologically dependent and enabling the licensor to exert control over his activities.

As data in Table 7 indicate the high share (exceeding 80% of the total) of contract clauses authorizing Polish licensees to use their Western counterparts' trade mark has been the general rule. This may mean that licensors tended - by means of licensee's goods exported under their trade mark - to create an extra, gratuitous source of publicity for their own. This property of Polish licence trade with the West gains a new dimension if we recall that only less than 9% of licence agreements contained the total ban of exports. Hence, it is reasonable to conclude that the common use of trade marks in licence contracts with Poland performs the important function of promoting Western firms in their expansion abroad, including the markets of other COMECON countries.

On the level of sub-groups one distinctive feature draws the attention - large MNEs have displayed the lowest relative propensity (particularly in value terms) to make their trade mark available to Polish licensees. This phenomenon may result from two reasons. Firstly, it may testify to the smaller relative weight (both in relation to main priorities of their global strategy and if compared to smaller-sized and less internationalized firms) that MNEs attach to the promotion - through the channel of Polish licensees - of their goods in centrally-planned economies and more broadly - to the expansion there in general. Secondly, the trend in question may also reflect the generally lower propensity of large MNEs, whose market position has been strong and well established, to use trade marks as a tool for achieving their strategic aims.

Table 8 provides a very interesting information on the range of sub-licensing rights by the licensee. Nearly 95% of all contracts in the

Table 8.

Right to sub-licence by size and internationalization of licensors' firms.

SIZE ^a	Total ban			Partial ban			No ban			Total		
	A	B	C	A	B	C	A	B	C	A	B	C
up to 500	40	88,9	91,2	4	8,9	6,3	1	2,2	2,5	45	100,0	100,0
501-2000	31	86,1	83,5	4	11,1	10,7	1	2,8	5,8	36	100,0	100,0
2001-10000	38	95,0	98,0	1	2,5	0,9	1	2,5	1,1	40	100,0	100,0
over 10000	162	96,4	99,2	4	2,4	0,7	2	1,2	0,1	168	100,0	100,0
N.a.	89	97,8	99,3	-	-	-	2	2,2	0,7	91	100,0	100,0
INTERNATIO- NALIZATION ^b												
0	59	94,5	97,4	2	2,7	1,2	2	2,7	1,4	73	100,0	100,0
1-2	23	88,5	98,7	3	11,5	1,3	-	-	-	26	100,0	100,0
3-5	22	91,7	80,6	1	4,1	6,4	1	4,1	13,0	24	100,0	100,0
>5	120	95,0	98,3	7	3,5	1,3	3	1,5	0,4	200	100,0	100,0
N.a.	56	96,5	99,3	-	-	-	1	3,5	0,7	57	100,0	100,0
Total	360	94,7	97,9	13	3,4	1,4	7	1,9	0,7	380	100,0	100,0

a, b, A, 3, C - as in Table 1.

Source: Own calculations based on Foreign Trade Data Centre data.

sample (98% in terms of value) contained the total ban of sub-licensing. Such a high proportion of restrictive provisions seems to confirm the conclusion drawn in an earlier study /Cieřlik, Rapacki, 1981/ that Western firms have attached much greater importance to the protection of technological information, which is the key determinant of their competitive advantage, than to the protection of their position as exporters of commodities embodying this information.

One more feature of the sample under analysis should be pointed out. This is the close positive correlation between the size and internationalization of licensors' firms and the extent of protection of their technologically-based competitive advantage, by means of contract clauses prohibiting the licenses to sub-licence. The above trend provides an indirect proof supporting the widely accepted thesis /see, e.g. Parker, 1978/ which holds that large MNEs show the strong performance for fully-owned (controlled) subsidiaries abroad as the optimal method of appropriating rents from innovations. Since in centrally-planned economies (including Poland) such a method of entering foreign markets is - for the moment - not possible the almost total ban of sub-licensing met in licence agreements with Poland may be translated as a specific substitute for the internalization of licensors' competitive advantage and an attempt to minimize the risk of its loss.

3. LICENSING IN THE STRATEGY OF WESTERN FIRMS IN CPDs

The empirical findings of the present research, combined with the results of an earlier study by the author /Cieřlik, Rapacki, 1981/ allow for formulating several generalizations referring to the role of licensing in Western firms' strategies pursued in socialist countries.

Before substantiating main conclusions resulting from the analysis carried out one important remark should be made. It ought to be pointed out that licence trade (and more broadly - economic relations) with centrally-planned economies used to be conceived - despite some exceptions from this rule - as a second, or third best, alternative

ginal place of East-West licence flows - as seen from Western companies' angle - calls for certain caution when interpreting generalizations presented below.

Generally speaking the experience of Poland seems to confirm a number of general propositions put forward in the relevant literature, with regard to basic determinants of Western enterprises' licensing policy. The experience in question, however, provides simultaneously a very distinct picture of the hierarchy of factors influencing the choice of licensing as a means of entering the COMECON markets, as compared to the general pattern prevailing in world licence trade. The divergence from this pattern may be, among others, attributed to the fact that some of these factors - which are of key importance in Western firms' strategy of foreign expansion - either disappear completely or play a marginal role in case of East-West relations.

The empirical material presented above authorize the conclusion that main motives inducing Western companies to enter COMECON markets are principally much the same as those pushing them to become international in general. The motives in question can be deduced from the global strategy of a firm aimed at increasing the company size or augment its market share in the long run. The above assertion has been also confirmed in the existing literature. According to some authors /Hayden and Nau, 1975; Brada, 1982/ Western firms have predominantly granted licences to their Eastern counterparts with a view to get access to new markets and hence - to increase their share in the world market. It is worth stressing that licensing opened for Western licensors not only the licensee's market but - through exports of licensed products - also the markets of other socialist countries (see tab. 5 - the high content of contract provisions allowing to export to other COMECON countries). Western companies could therefore - via licensing - appropriate a part of advantages resulting from economic integration in the framework of COMECON, both directly and indirectly (the induction effect).

As the example of Poland suggests, although the basic goals of enterprises from industrialized countries, which enter Eastern markets

methods of achieving those goals had to be introduced. The principal factor that affects the choice of forms of entry in centrally-planned economies and determines indirectly the hierarchy of motives inducing Western firms to sell licences to the East results from institutional restrictions (or total ban) imposed on the inflow of foreign productive capital to socialist countries. As a consequence in the circumstances of East-West economic co-operation the alternative: licensing vs. direct foreign investment as competitive or partly complementary methods of entering Eastern markets does not practically exist. Hence, the general model of interrelations between licensing, commodity exports and direct foreign investment becomes to a great extent useless as an analytical tool for studying East-West relations and should be replaced by a two-element model comprising licensing and commodity exports (if we also include the intermediate forms of foreign expansion the model referred to should additionally encompass joint-ventures and industrial co-operation).^{4/}

The absence of direct foreign investment option in East-West relations means an automatic increase of the role of licensing in the strategies of Western firms pursued in centrally-planned economies. There is much room for assuming that - due to the specific nature of economic environment in socialist countries - a substantial part of decisions with respect to granting licences to the East has in a way been forced by the lack of other alternative possibility to enter those countries' markets and extract rents from the exploitation of an innovation. One may expect that in hypothetical absence of constraints to

4/ It should be kept in mind, however, that in many COMECON countries - except for Poland and GDR - existing legislation allows the establishment of joint-ventures with the maximum share of foreign capital amounting to 49%. The recent regulations in Bulgaria introduced the possibility of setting up the majority-owned mixed enterprises. One should also remember that in many instances the equity share of 51% or more is not indispensable for the effective control of an enterprise. The non-equity forms of involvement (e.g. capitalization of know-how and management contracts) may often prove equally effective tool of control. Since - firstly - non-equity type of links with Western firms play a marginal role in socialist countries and secondly - fully-owned foreign subsidiary protects much better the competitive advantage of an innovator.

the inflow of foreign direct capital to socialist countries a part of actual East-West licence trade (among independent firms) would either not take place or be replaced by internal licence transactions between parent companies and their subsidiaries in centrally-planned economies.

Since in the institutional framework prevailing in socialist countries the strong preference of Western firms for internalization of their technology-based competitive advantage could not take the real shape they had to find - while licensing their Eastern counterparts - another methods of protecting their technological monopoly. In our view these are the very restrictive (in some points) clauses in licence contracts that became such a method and the substitute of direct foreign investment in East-West relations. The basic task of these clauses has been to minimize the risk of converting a licensee into a strong competitor and hence - of threatening the privileged position of the licensor. The empirical findings of the present study seem to confirm this hypothesis. The high share (nearly 85%) of export restrictions (total or selective ban on exports, particularly to markets of vital importance for the licensor) and almost total ban to sub-licence provide a convincing proof to this.

To understand the actual role licensing plays in the strategy of Western companies in centrally-planned economies one more factor should be included into the analysis. This is the lack of oligopolistic conduct in the home markets in socialist countries. From the angle of Western entrants it means, among other things, the weakness of competitive pressure, both in terms of local competition and the practical absence of other foreign rivals. As a consequence one may conclude that the threat of losing the competitive advantage in centrally-planned economies has been considerably smaller and the means required for its effective protection - not as strong as in a more competitive environment. The implication of the foregoing assertion for our analysis is the following: one of the most distinctive properties of East-West relations is the fact that Western firms which enter Eastern markets cannot rely on the internalization option as a means of protecting their technological lead and simultaneously they do not need - to some

existed).

The lack of possibility to use fully-owned foreign subsidiaries as a channel of technology transfer to socialist countries resulted in another divergence from the general pattern existing in international licence trade. Due to the requirements imposed by the existing market structure and technological competition enterprises pursuing the strategy of intensive product innovations have been the main agents of this trade. According to some authors /Brada, 1982/ those firms are much more inclining to internalize the technology and much less eager to licence independent companies than firms whose advantage is based on process innovations. In contrast with this pattern the latter has been overrepresented as licensors in Poland's licence trade with the West while the share of companies-product innovators has been relatively very low /Brada, 1982/. They seemed very reluctant to resign from the centralized control over their affiliates which licensing an independent company or industrial co-operation agreement would require.

The domination of large multinational companies as sellers of licences has been another regularity of world licence turnover. Poland's experience constituted again certain deviation from this general pattern. Large MNEs have been suppliers of slightly over 40% of the total number of licences exported to Poland during 1971-1980 period, but simultaneously the share of small national firms has been relatively very high and amounted to 33% (table 1). The proportions in question, being the subsequent distinctive feature of East-West licence trade, may be also seen as a partial proof to support Baranson's assertion /1970/ who maintained that the smaller is the firm's experience in dealing in foreign markets the greater its propensity to use licensing of independent companies as a form of getting access to foreign markets.

The empirical material presented in the earlier section suggests that three motives of licensing have played much greater role in East-West relations than they did in the remaining parts of the world licence trade. These have been: progressive standardization in the product life cycle, the possibility of creating additional sources of revenues for the licensor and his endeavours to make the licensee technologically

lly dependent.

Normally licensing takes place when the licensor managed to start exploiting in production newer generations of technology. The case of Poland not only confirms this rule but proves that in many instances the discrepancy between technological levels of technical knowledge licensed to Poland and that of innovations exploited by the licensors in the West has been particularly great. As the analysis of a sample of 44 licences imported to Poland in 1971-1980 shows /Rapacki, 1986/ a number of licences purchased proved obsolete at the moment of concluding licence agreements, if compared even to average world standards. If combined with the high share of exclusive licences (see table 6) the above trend may suggest that Poland could have constituted for Western firms a very good market for selling those technologies that already entered the maturity stage in the product life cycle and the demand for which in the other segments of the world market has been sharply diminishing.^{5/}

According to some authors /Contractor, 1983/ the owners of proprietary technology may be often induced to grant the licence to an independent firm by the possibility of extracting additional rents from accompanying transactions (exports of productive inputs, technical assistance etc.). The experience of Poland suggests that this motive has gained much greater importance in East-West licence trade. As the recent study by the author indicates /Rapacki, 1986/ the share of licence fees (total of the lump sum and royalties) in the total expenditures on licensing imports (licence fees + supplies and investment imports) amounted to 8% in average during 1971-1980 period in Poland. In other words the rents Western licensors extracted from accompanying transactions exceeded by over 12 times their revenues from the exports of licences to Poland. The exports of raw materials, components and parts to Poland themselves have generated returns 5 times higher than the value of

5/ An indirect proof which confirms this view may be found in the study by Drabek /1983/ on East-West trade structure. According to his findings among the group of processed goods imported by the COMECON countries from the West (OECD) the least and most

licence fees.^{6/} Such a high profitability of licence transactions with Poland (being the outcome, among other things, of the weakness of the local subcontracting and supply infrastructure) converts this motive of selling licences to socialist countries into one of the leading factors within the strategy of Western companies.

The foregoing points out to another, closely interlinked, motive of licensing enterprises in centrally-planned economies, namely the tendency of Western firms to make their Eastern licensees technologically (and in a broader sense - economically) dependent. This motive becomes particularly important when the full equity control over the licensee's firm is not possible. The licensor, with a view to protect his competitive advantage, attempts then to subordinate the licensee's activity to his own aims by means of non-equity, more hidden forms of control and to make the recipient firm technologically dependent. The most frequent forms of perpetuating the licensee's dependence that are met in licence contracts concluded with Poland have been the following:

- 1) tie-in provisions,^{7/}
- 2) the use of licensor's sales network and service facilities,
- 3) the use of licensor's trade mark (see table 7),
- 4) the obligation to implement licensor's improvements (table 3).

The above remarks authorize the conclusion that - in the institutional framework of East-West licence trade - the special "packaging" of licence transactions that enables the licensor to exert an indirect control over the licensee's performance and to perpetuate his technological dependence has become - together with restrictive contract provisions - a substitute of fully-owned foreign subsidiaries, aimed at protecting Western firms' technology-based competitive advantage.

6/ The extra revenues came not only from additional commodity exports to the licensee, but - as it results from author's research - they derivated simultaneously from overpricing of those exports in comparison with international market prices.

7/ It should be stressed, however, that the expanding imports of a number of inputs to licensing production took frequently place in absence of tie-in provisions in licence contracts. They resulted then from the physical inavailability or insufficient quality (time-lags in delivery) of many domestic materials, parts and components.

4. CONCLUSIONS

The empirical findings of the present study as well as those of the other studies by the author indicate that the hierarchy of motives inducing Western companies to grant licences to centrally-planned economies significantly differs from the general pattern of the world licence trade.

The fundamental rationale for licensing to socialist countries may be derivated from institutional barriers to establish fully- or majority-owned foreign subsidiaries in these countries (except for Bulgaria since 1981). As a result the relative weight of licensing in the strategy of Western firms pursued in centrally-planned economies substantially increases (as well as the relative importance of joint-ventures and industrial co-operation). In absence of the internalization option the very restrictive, in some respects, provisions in licence contracts have become the main method of protecting technology-based competitive advantage of Western firms in socialist countries. They proved to be equally effective as equity control, due to the weak competitive pressure in the host countries. Simultaneously, the technological monopoly of Western licensors has been effectively secured by means of technology packaging, i.e. different forms of perpetuating the economic and technological dependence of licensees in socialist countries.

Existing possibilities to appropriate extra rents from accompanying transactions, by several times exceeding the value of licence fees, may be also included to the group of the most important motives of licensing to socialist countries. Equally important has been the tendency of Western firms (especially those diversified) to complement own resources with the local ones (particularly in case of licensing combined with industrial co-operation agreements). Finally, due to the technological gap between East and West, the feasibility of extracting rents from relatively obsolescent technologies that entered the standardization stage in the product cycle, may be deemed as a leading determinant of Western firms' licensing strategy.

One more salient feature of licensing in East-West relations should be finally pointed out. This is the fact that the principal motives of granting licences to independent companies that prevail in world licence trade has been of marginal importance or absent in centrally-planned economies. This is the case of rapid technological progress, strong competitive pressure resulting, among other factors, from oligopolistic market structures, reciprocity in access to competitor's technology and the creation of selective competition with a view to undermine the position of main rivals of the licensor.

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