

Table of Contents

Abstract	1
Chapter 1 <i>Introduction</i>	1
1.1 Background and purpose	1
1.2 The approach and scope of the study	4
1.3 Relationship to earlier studies	6
1.4 Outline of the study	10
Chapter 2 <i>Toward a theory of international direct investment</i>	13
2.1 Determinants of the international location of production	15
The theory of international trade	16
Location theory and the theory of the product cycle	23
2.2 Determinants of ownership control	27
The economics of imperfect competition	28
The theory of the firm and direct investment	33
2.3 Summary and conclusions	39
Chapter 3 <i>Swedish, U.S., and U.K. foreign investment: Some comparisons</i>	45
3.1 Different kinds of international direct investment	47
3.2 The relative size of manufacturing investment abroad	51
3.3 The country and industry distribution of manufacturing investment	54
The country distribution	56
The industry distribution	60
3.4 The industry pattern of inward and outward investment in Sweden	65
3.5 Summary and conclusions	69
Chapter 4 <i>Formulation of hypotheses, the model, sources and uses of data</i>	73
4.1 Hypotheses regarding inter-firm differences in foreign production	73

A framework for analysis	73
Country, industry, and firm determinants of foreign production	79
Time, the time sequence of growth, and alternatives to foreign production	81
4.2 An econometric model of foreign production	84
Variables and functional relationships	86
Modifications in the model imposed by available data	91
OLS- and 2SLS-estimation	93
4.3 The empirical data and definitions of variables	94
The data	94
Measures of the independent variables	96
4.4 Method of analysis and the regression model	104
4.5 List of variables	107
Chapter 5 <i>Firm and country determinants of exports and foreign production by Swedish firms</i>	109
5.1 Measures of the international involvement of Swedish foreign investors	109
5.2 Country and industry differences in affiliate sales and production abroad	116
5.3 Determinants of the overall propensity to sell and to produce abroad	120
5.4 Determinants of the propensity to sell and to produce in different countries	130
5.5 The effect of wage differentials on the locational choice of individual firms: additional evidence	143
5.6 A comparison with some related studies	145
5.7 Summary and conclusions	150
Chapter 6 <i>Firm size, diversification, age, and foreign production</i>	153
6.1 The size of Swedish foreign investors	154
6.2 Size and industry differences between "investors" and "non-investors"	157
6.3 The relationship between domestic and foreign size	162
6.4 Comparisons with some related studies	175
6.5 "Old" and "new" investors	178
6.6 Summary and conclusions	186

Chapter 7 <i>The effect on exports of foreign production controls</i>	191
7.1 The interrelationship between foreign production and exports. . .	193
Substitution and complementarity	193
Foreign production affecting the demand for exports generally	195
Economies of firm size	196
7.2 The "alternative position" and problems of estimation.	198
7.3 Empirical results	200
The simple relationship between exports and foreign production by Swedish firms	200
The partial effect of foreign production on exports	202
The effect on exports of substitutes and complements	206
Comparisons of the different estimates	215
7.6 Related studies on the exports effects of U.S. direct investment	218
7.7 Summary and conclusions	223
7.8 Macroeconomic implications	225
Appendix A Supplement to Chapter 4 and Chapter 7	230
Appendix B The IUI survey data on Swedish manufacturing invest- ment abroad	243
Appendix C Some basic data on foreign affiliates of Swedish manu- facturing firms	267
Bibliography	282

List of Tables and Figures

Tables

3:1 The stock of U.S., U.K., and Swedish direct investment by main industry	49
3:2 The relative size of Swedish and U.S. manufacturing abroad. . .	53
3:3 The stock of U.S., U.K., and Swedish manufacturing investment and exports by area and country 1970	58
3:4 The stock of U.S., U.K., and Swedish manufacturing investment and exports by industry.	62

3:5	Simple correlations between the percentage distribution of direct investment and exports by the U.S., the U.K., and Sweden . . .	66
3:6	Employment in Swedish manufacturing affiliates abroad and in foreign manufacturing affiliates in Sweden by industry in 1970	68
4:1	Variables of the simultaneous-equation model of foreign production	87
4:2	The expected relationship between the propensity to sell and to produce abroad and the exogenous variables.	105
4:3	The expected relationship between the propensity to sell and to produce abroad and the other endogenous variables	105
5:1	Swedish firms with foreign manufacturing affiliates. Sales and production at home and abroad in 1974.	111
5:2	Distribution of foreign manufacturing investors in 1970 according to the relative volume of foreign sales	115
5:3	Distribution of foreign manufacturing investors in 1970 according to the relative volume of foreign production.	115
5:4	Manufacturing affiliate sales, exports and imports by region in 1970.	117
5:5	Manufacturing affiliate sales, exports and imports by industry in 1970.	119
5:6	Correlation coefficients: overall exports and foreign production propensities and the independent variables	122
5:7	Determinants of the propensity to sell and to produce abroad. All firms	129
5:8	Correlation coefficients: propensities to export to and produce in different countries and the independent variables	133
5:9	Determinants of the propensity to export to and produce in individual foreign countries	136
5:10	Determinants of the propensity to export to and produce in individual foreign countries: firms with more than 5 manufacturing affiliates abroad.	140
6:1	Swedish firms with manufacturing and sales affiliates abroad respectively: sales, exports, and exports to foreign affiliates in 1974.	155
6:2	Size distribution of Swedish firms with manufacturing affiliates abroad and sales, exports and foreign production by size class in 1970.	155
6:3	Firm size and the volume of exports and foreign production by	

industry	165
6:4 Correlation coefficients: the volume of exports, foreign production, and domestic sales and the independent variables	171
6:5 Firm size and other determinants of foreign size	173
6:6 Determinants of the propensity to sell and to produce abroad: old and recent investors	181
7:1 Net sales by foreign manufacturing affiliates relative to Swedish exports by region 1970 and change 1965–70, 1970–74	201
7:2 The effect of foreign production on exports overall	203
7:3 The effect of foreign production on exports to different countries. All firms and firms with more than 5 manufacturing affiliates abroad	205
7:4 The effect of foreign production on exports of "substitute" and "complementary" products overall	208
7:5 The effect of foreign production on exports of "substitute" and "complementary" products to different countries	209
7:6 The estimated effects of a 1 dollar increase in foreign production on the average firm's own exports overall and to individual countries	216
C:1 Foreign affiliates of Swedish manufacturing firms 1965–74	267
C:2 Manufacturing affiliates abroad by industry: employment and total assets in 1960, 1965, 1970, and 1974	268
C:3 Manufacturing affiliates abroad by country: employment and total assets 1960, 1965, 1970, and 1974	269
C:4 Manufacturing affiliate sales and trade by industry 1965, 1970, and 1974	271
C:5 Manufacturing affiliate sales and trade by region 1965 and 1970	272
C:6 Manufacturing affiliate sales and trade by country in 1974	273
C:7 Book value of Swedish direct investment in manufacturing affiliates by industry in 1965 and 1970	275
C:8 Book value of Swedish direct investment by region in 1965 and 1970	276
C:9 Sales affiliates abroad by industry 1965, 1970, and 1974	277
C:10 Sales affiliates abroad by country in 1965, 1970, and 1974	278
C:11 The 20 largest Swedish multinational manufacturing firms in 1978	280

Figures

4:1	Determination of the firm's sales and output in two countries .	77
4:2	Domestic and foreign sales for a growing firm	83
5:1	Firms with foreign manufacturing affiliates: Sales and production at home and abroad 1965, 1970, and 1974	113
5:2	Scatter diagram of the propensity to export against R & D intensity	124
5:3	Scatter diagram of the propensity to produce abroad against skill intensity	125
5:4	Scatter diagram of the propensity to produce abroad against the age of foreign manufacturing	126
6:1	Probability of being a foreign investor for Swedish and U.S. firms of a given size class	161
6:2	Scatter diagram of exports against domestic size	168
6:3	Scatter diagram of foreign production against domestic size.	169
6:4	Scatter diagram of the propensity to produce abroad against the capital-labor ratio: pre-1960 investors	183
6:5	Scatter diagram of the propensity to produce abroad against the capital-labor ratio: 1960's investors	184
6:6	Scatter diagram of the propensity to produce abroad against the capital-labor ratio: 1970's investors	187
7:1	Scatter diagram of the propensity to export non-complementary products against the propensity to produce in different coun- tries	213
7:2	Scatter diagram of the propensity to export complementary products against the propensity to produce in different coun- tries	214