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Changing competitive advantage: Switzerland as home and host country of multinational enterprises

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1. Introduction

The competitive advantage of nations has been related with their capacity to export goods, services and capital. Besides trade flows, outward and inward foreign direct investments (OFDI and IFDI) are important indicators for competitive advantages and disadvantages. In Switzerland, the large and increasing stock of direct investments in foreign countries has been understood as reflecting the strength of the domestic economy, while the inflow of FDI and the impact of foreign firms on the domestic economy have received little attention. Theoretical concepts and empirical investigations linking the competitiveness of a country with the growth and expansion of their large multinational firms have strengthened this view.[1]

This paper analyses the expansion of Swiss companies abroad as well as the activities of foreign multinationals in Switzerland throughout the twentieth century. We shall divide the period of our analyses into an early period – from the beginning of the twentieth century to the early 1950s – and then concentrate mainly on the last three decades of the century. This periodisation is mainly due to the different sources available in the two periods, but it is also justified by the different international economic regimes: protectionism and isolationism during the wars and the interwar years, liberalisation and international economic integration since the 1950s.

The early period provides the basis on which continuity and change in the second period can be assessed. Although the information gathered on the second period is still far from complete, the emphasis will be put on the intensification of the process of globalisation in the

[1] Alfred D. Chandler has been established this link in the 1960s and 1970s in his numerous studies on the rise and persistence of the large managerial enterprises. It was reinforced – with a focus on the large multinational companies - in Michael Porter's publications on the competitive advantage of nation in the 1990s.

1980s and especially in the 1990s, when the link between the competitiveness of the firms and the competitiveness of the nation - as their home-base – lost its traditional strength. The growth of the large MNE became less nation-bound mainly for three reasons: Firstly, the number of new foreign countries offering attractive conditions for foreign investors has increased, and, secondly, the broadening experience of firms in doing business abroad has created a stock of firm-specific capabilities and know-how which allowed the firms to take advantage of the opening and expanding foreign markets. The learning process of the firms in the past and, therefore, their history of internationalisation must be taken into account as a necessary condition for exploiting successfully the new opportunities for growth.

The fact that national economies are not only linked by trade flows, but by various other forms of internationalisation with the economies of other nations is acknowledged, but usually perceived as a recent phenomenon and explained with the liberalisation of capital markets since the 1980s. In effect, if we have a look at the national statistics, longterm series on international economic relations are available for exports and imports of primary material, industrial products and, to some extent, for services, but there are only rudimentary data on FDI. In Switzerland official figures are available only for since 1985. Systematic information on specific forms investments (greenfield or mergers and acquisitions), on the industries MNE have been active in and the activities undertaken by firms in foreign countries (sales, production, R&D etc.) is largely lacking. Obviously, the focus on the „national economy" as basis for the „national statistics" has contributed to judging other forms of internationalisation besides trade as being of minor importance for the economic performance of a country.

In business history the focus has been less nation-bound: foreign direct investments - described and analysed under the heading of the "multinational enterprise (MNE)" - have been on the research agenda for several decades, but research has mainly focused on the United States and Great Britain.[2] Fortunately, economic internationalisation has become a major topic also in other European countries.[3] As mentioned above, in the theoretical and

[2] Mira Wilkins, *The Emergence of Multinational Enterprise: American Business Abroad from the Colonial Era to 1914.* Cambridge, Mass.: Harvard University Press, 1970; Mira Wilkins, *The maturing of multinational enterprise: American business abroad from 1914 to 1970,* Cambridge, Massachusetts: Harvard University Press, 1974; Peter J. Buckley, Mark Casson, *Multinational Enterprises in the World Economy. Essays in Honour of John Dunning.* Aldershot, England, 1992; Vermont, USA; Geoffrey Jones, Merchants to Multinationals. British Trading Companies in the 19th and 20th Centuries, Oxford University Press, 2000.

[3] Alice Teichova et al. (eds.), *Multinational enterprise in historical perspective,* Cambridge: Cambridge University Press, 1986; Jones Geoffrey/Harm G. Schröter (eds.), *The Rise of*

historical literature the notion prevails that MNE reflect the strengths of the economy of their home country. Consequently, a large stock of direct investments in foreign countries has been interpreted as having a positive effect on the home economy. [4] The literature on the impact of inward FDI on their host economies is more controversial and varies between highly beneficial and detrimental.[5] In the 1950s and 1960s, MNE were perceived as exploiting the resources of developing countries without contributing to their potential of growth in the long term. The attitude of these countries has completely changed, and the inflow of FDI is now highly welcomed. In the highly developed countries a positive attitude towards the inflow of FDI can be observed only since the 1990s, while outward FDI are increasingly perceived as a threat to the national economy.[6] What are the reasons for this change of perspective? Clearly, a deeper understanding of the impact of FDI – both inflows and outflows – on the national economies is highly needed.

The main lessons that can be drawn from this literature is, firstly, that it is important to focus on both sides of the internationalisation process: on the activities of domestic MNE in foreign countries as well as of foreign MNE in the national economy; and, secondly, that it is important to distinguish the impact of FDI on the performance of the firm, on the one hand, and on the national economy, on the other.[7] The link between the international expansion of the firm and the strength of the economy of its home base is ambiguous. International trade

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Multinationals in Continental Europe, Aldershot: Edward Elgar, 1993; Hubert Bonin et al. (eds.), *Transnational Companies, 19th-20th Centuries,* Paris, 2002; Sebastian Schief, *Globalisierung – Entwicklungspfade der Internationalisierung deutscher Konzerne,* Frankfurt et al.: Peter Lang, 2003; Alice Teichova/ Maurice Lévy-Leboyer / Helga Nussbaum, *Historical Studies in international corporate business,* Cambridge: Cambridge University Press, 1989

4 Michael E. Porter, *The Competitive Advantage of Nations,* London: McMillan, 1990; John H. Dunning, „Trade, Location of Economic Activity and the MNE: A Search for an Ecclectic Approach," in: Bertil Ohlin, Per-Ove Hesselborn/Per Magnus Wijkman (eds.), *The international allocation of economic activity,* London: The Macmillan Press, 1977; John H. Dunning, *The globalization of business. The challenge of the 1990,* London and New York: Routledge, 1993.

5 See for example, the investigations made by Dunning on the impact of the growth of US-owned affiliates on the development of European countries. An overview is given in John Cantwell,"Innovation and Technological Competitiveness", in Buckley and Casson, *Multinational Enterprises*, pp. 21-40; James R. Tybout, Manufacturing Firms in Developing Countries: How Well Do They Do, and Why? *Journal of Economic Literature* (March 2000), Vol. 38, No. 1, 11-44.

6 Lars Oxelheim/Pervez N. Ghauri (eds.), *European Union and the race for foreign direct investment in Europe,* Oxford: Elsevier, 2004; Haiyan Zhang and Daniel Van Den Bulcke, "The Ownership Structure of Belgian Companies: Evidence about a Small Open Economy in the Globalization Process", in: Daniel Van Den Bulcke/ Alain Verbeke (eds.), *Globalization and the Small Open Economy,* Cheltenham, UK; Northampton, MA, USA: Edward Elgar, 2004, pp. 129-158.

7 Àlan M. Rugman and Alain Verbeke introduce the concepts of firm-bound advantages (which internalise globalisation efficiencies) and location-bound advantages (which capture elements of national responsiveness). Alan M. Rugman and Alain Verbeke, "Multinational Enterprise and National Economic Policy," in Cantwell, 1992, pp. 194 ff.

flows, outward and inward FDI, the kind of activities firms keep within the national borders or shift to foreign countries are linked with location-specific and/or firm-specific endowments compared with the endowments of other countries and foreign firms. Location-bound endowments are the key influence where a specific activity (distribution, production, R&D) takes place, but whether a domestic or a foreign firm will exploit these country specific advantages (CSAs) depends on firm-specific advantages (FSAs) of the foreign and domestic firms. [8] Consequently, the stocks of inward and outward FDI and the activities foreign firms undertake in a specific country will allow – to some extent – to identify a country's location-specific advantages and disadvantages as well as those of its domestic firms.

In order to evaluate the impact of FDI on the national economy, it is important to focus on the kind of activities that are taken up at home and in other countries. Creating new markets by establishing distribution centres in foreign countries will promote exports from the home country and, as a rule, strengthen the link between the growth of the firm and the growth of the national economy. The effect of taking up production in foreign countries is more ambiguous, but certainly related with some location specific advantage in the host country. Also the establishment of R&D, finance and governance functions in foreign countries is a clear indicator for location-specific advantages in the host country compared with the facilities at home. Besides compiling information on a large number of companies - a rather difficult endeavour, because adequate sources are scarce -, the most adequate method for investigating more closely the impact of FDI on the companies, on the one hand, and on the national economy on the other, is the case study approach of business history. It allows identifying the business activities that MNE have undertaken abroad and at home and changes of these activities over a longer period of time.

2. The early period

2.1 Swiss firms in foreign countries

Measured with the shares of exports and imports in GDP or with the number of multinational enterprises (MNE), Switzerland, like other small European countries, was a highly internationalised economy already at the beginning of the twentieth century. Estimates of the amount of foreign direct investments of the main MNE have been high in comparison with

[8] Dunning, Trade, Location of Economic Activity, p. 410. See also Dunning, Multinationals, Technology and Competitiveness.

investments in their home country: In 1919, total FDI have been almost twice the amount of investments at home. In 1900 the ratio was only slightly lower (1.7 instead of 1.9). In 1919 the shares of the main outward-oriented industries in total FDI were: canned food 35,2%, chocolate 4%, textiles 16,5%, machines 8,5%, electrical machinery 7,7 %, chemicals 2,3%, electro-chemicals 4.[9] In the same year the relationship between FDI and domestic investments was: machine industry 0,5, textile industry 3,8, canning industry 6,1, chocolate industry 1, electrical machinery 1,3, electrochemical industry 0,4, chemical industry 1.8. These estimates are, of course, flawed, because not all firms which would have qualified as MNE have been included and the amount of direct investments are only rough estimates, but the relative dimensions should not be too far from the point.

Another analysis shows that the amount of investments was rather underestimated. Himmel's statistics are based on 19 firms in 1900, 64 in 1910 and 87 in 1919. The analysis made by Harm Schröter on MNE in Switzerland reveals that their number was much larger, but also this analysis confirms the continuous international expansion: from 25 Swiss parent companies in the early 1870s, to 98 in 1900, 127 in 1910 and 160 in 1914. In the same period, the number of foreign subsidiaries increased to 265: 25% in France and in Germany about 15% in Italy, 13% in the US, 8% in Great Britain, 5% in Austria and 3% in Norway and Australia.[10] With 20% the share of the US was higher at the beginning of the century than in 1914.

Another analysis comparing the major MNE (defined as companies with at least two manufacturing subsidiaries in two different foreign countries or three subsidiaries in one foreign country) in five small European countries - Belgium, Denmark, Netherlands, Sweden, Switzerland - shows that the number of MNE (29 out of a total of 57 in 1914) was considerably higher in Switzerland (besides Belgium in the 1870s and 1880s): the number of FDI - 159 out of a total of 391 for all countries in 1914 - was also higher and they were more diversified geographically and by industry.[11]

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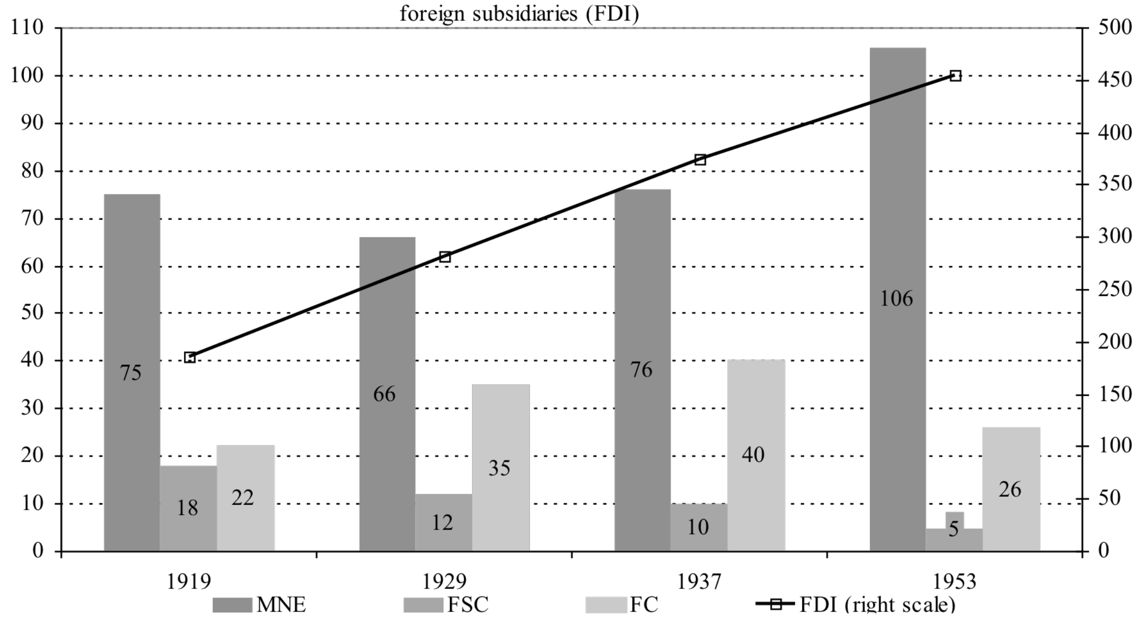
[9] Ernst Himmel, *Industrielle Kapitalanlagen der Schweiz im Ausland,* Langensalza, 1922, pp. 117 ff**.**

[10] Harm G. Schröter, „Etablierungs- und Verteilungsmuster der schweizerischen Auslandsproduktion von 1870-1914, in: Paul Bairoch, Martin Körner (eds.) *Die Schweiz in der Weltwirtschaft (15.-20. Jh.),* Schweizerische Gesellschaft für Wirtschafts- und Sozialgeschichte, Heft 8, 8. Jg., Zurich: Chronos, 1990, pp. 391-407.

[11] Harm G. Schröter, *Aufstieg der Kleinen. Multinationale Unternehmen aus fünf kleinen Staaten vor 1914.* Schriften zur Wirtschafts- und Sozialgeschichte, Band 42, Berlin: Duncker & Humblot, 1993, pp. 29-111.

There are no reliable estimates of the aggregate value of FDI of Swiss firms after 1919 and up until 1966. We have collected information on MNE and their FDI at four benchmark years (1919, 1929, 1937, 1953) based on financial yearbooks containing the balance sheets of the main Swiss companies and on some other sources.[12] The definition of MNE had to be modified compared with the earlier period, because the source does not allow to systematically distinguish manufacturing from other foreign activities. The term MNE therefore includes also firms with sales agencies and distribution centres abroad - not only firms with manufacturing subsidiaries -, and the number of FDI also comprises all these activities. Furthermore, firms of the service sector with foreign branch offices are taken into account. The results show that the drive towards internationalisation – measured by the number of FDI - clearly persisted and was hardly affected by the Great Depression in the 1930s or World War II. The number of MNE declined between 1919 and 1929, mainly due to takeovers and mergers among Swiss firms.

Figure 1: Number of MNE, Free Standing Companies (FSC), Financial Companies (FC) and foreign subsidiaries (FDI)



Sources: Schweizerisches Finanz-Jahrbuch, Ausgaben 1919, 1929, 1937 und 1953; Vade-mecum des Bourses de Zurich, Bâle et Genève, Ausgaben 1920/21 und 1929/30; Schweizer Börsenhandbuch für 1938; Manuel des Bourses Suisses pour 1953-54; Kompass 1953-54; cmpany histories and annual reports.

A considerable number of companies entered and left between these benchmark years, but the position of the "core companies" was quite stable. These companies expanded continuously

[12] The main source, Schweizerisches Finanz-Jahrbuch, contains information on 380 companies in 1919, 445 in 1930, 443 in 1937, 442 in 1953).

abroad. As “core companies” we can distinguish about thirty companies of the manufacturing and a dozen companies of the service sectors. Most of these firms had become multinational already in the nineteenth century and continued to belong to the largest MNE in their branch well into the post-War II decades. Several of these firms founded the Industrie-Holding, the association of the large Swiss MNE (see section 3 below). In Table A1 in the Appendix we have compared the core companies in the period 1919-1953, whith those of the comparative analysis on MNE in small European countries in the late nineteenth and early twentieth century. The main difference to the period before World War I is that a third of the 33 major MNE were textile companies, but only two of them still belonged to the “core companies” after World War I.

From 1919 onwards the distribution by industries of the parent companies did not change very much (Table 1). But the number of parent companies is not an accurate measure for the activities of Swiss companies abroad, because the number of their subsidiaries, their size and their functions should be taken into account too. At the current state of research it seems quite clear that in relative terms the FDI of the traditional outward oriented industries (food and especially textiles) declined, while those of the “modern industries” (machines and chemicals) became more important. Two other facts stand out: the missing participation of the watch-making industry in the process of internationalisation by FDI and the rather high share of MNE in the service sector.

Table 1: Number of MNE by industry

	1919	**1929**	**1937**	**1953**
Industry	*57*	*50*	*52*	*68*
Processed food	10	7	6	6
Textiles	14	11	8	12
Metals and machines	12	15	16	19
Electrotechnical machinery	4	3	4	6
Chemicals-pharmaceuticals	7	5	5	12
Watches	2	2	1	2
Other Industries	8	7	12	11
Share in total number of MNE	76%	76%	68%	64%
Services	*18*	*16*	*24*	*38*
Transport and trade	9	6	10	19
Insurance	2	4	8	13
Banking	2	3	3	3
Other services	5	3	3	3
Share in total number of MNE	24%	24%	32%	36%

For most of the "core companies" case studies and company histories are available for the interwar period, and it is possible to identify their foreign subsidiaries, their activities (production, sales, R&D), the motives for expanding to specific foreign countries, and whether expectations were fulfilled or disappointed. The rapid expansion in foreign countries – clearly visible in the Himmel's statistics – entailed organisational and managerial problems, in some cases also considerable financial difficulties (for example for Roche and Nestlé in the early 1920s). In the interwar years, increasing protectionism and barriers to trade affected the main outward oriented industries differently: the machine and chemical industries tried to compensate the loss of exports in the traditional markets by expanding exports to more distant regions of the world, and cost disadvantages at home; customs barriers were avoided by establishing or expanding manufacturing subsidiaries abroad.[13] MNE of the chemical-pharmaceutical industry like Roche and Ciba also began to take up R&D activities in foreign countries. The MNE in the food industry, especially Nestlé, Hero and the main chocolate producers had to deal with the same problems, but additionally with the rise of input prices due to agricultural protectionism in Switzerland. Their reaction was a massive dislocation of production to foreign countries. The textile industry lost its position as the leading export industry, and the number of MNE in this sector also declined, but only until 1937. Subsequently their number increased again. It seems that expansion abroad continued after World War II while business activities in Switzerland declined.

The overall geographical diversification of FDI increased considerably between 1919 and 1953 (Table 2). The number of countries with Swiss FDI increased from 21 in 1919 to 32 in 1929 and about 50 in 1939 and 1953, and the share of FDI in the main European countries declined. In 1919 France was the country with by far the largest number of Swiss FDI, and it remained the preferred location until 1953. Before World War I Germany and France had about the same number of Swiss FDI.[14]

[13] Margrit Müller, „From Protectionism to Market Liberalisation: Patterns of Internationalisation in the Main Swiss Export Sectors," in Margrit Müller & Timo Myllyntaus (eds.), Pahbreakers: Small European Countries Responding to Globalisation and Deglobalisation, Bern: Peter Lang, 2007.
[14] Schröter, Aufstieg der Kleinen, p. 71.

Table 2: Geografical distribution of FDI (number of subsidiaries and in %)								
	1919	**1929**	**1937**	**1953**	**1919**	**1929**	**1937**	**1953**
Great Britain	16	20	23	33	10.1%	8.2%	7.1%	7.9%
Netherlands	2	9	13	13	1.3%	3.7%	4.0%	3.1%
Germany	20	34	45	44	12.7%	13.9%	14.0%	10.5%
France	50	57	55	67	31.6%	23.4%	17.1%	16.0%
Italy	14	15	24	38	8.9%	6.1%	7.5%	9.1%
Austria	7	13	15	13	4.4%	5.3%	4.7%	3.1%
Eastern Europe	7	12	25	1	4.4%	4.9%	7.8%	0.2%
Main European states	116	160	200	209	73.4%	65.6%	62.1%	49.9%
USA	11	18	22	38	7.0%	7.4%	6.8%	9.1%
Canada	0	2	2	12	0.0%	0.8%	7.1%	2.9%
North America	11	20	24	50	7.0%	8.2%	7.5%	11.9%
South America	3	13	19	31	1.9%	5.3%	5.9%	7.4%
Other countries	28	51	79	129	17.7%	20.9%	24.5%	30.8%
Total FDI	158	244	322	419	100.0%	100.0%	100.0%	100.0%

The practice of "expatriating" production was widely criticised in the 1930s and accused of being a major cause of Switzerland's high rate of unemployment. The firms involved replied that in a protectionist world FDI and licensing agreements with foreign firms were inevitable. In their view, foreign manufacturing facilities helped to preserve employment in Switzerland because they contributed to bear the high costs of R&D. The widely shared belief in technical progress and innovation as a means to compensate location-specific disadvantages was strengthened during the years of depression.[15]

2.2 Foreign firms in Switzerland

For this survey, we rely on data on the foreign subsidiaries of the world's largest multinational enterprises of the manufacturing sector. The database includes 413 multinational companies from twenty nations: based in US 187, Japan 67, United Kingdom 48, Germany 32, France 21, Canada 1, Sweden 9, Italy 8, Netherlands 8, Switzerland 7, Belgium-Luxembourg 7, and one or two companies from Argentina, Australia, India and Africa. Not included in this database are firms of the service sector.

[15] Müller, From Protectionism to Market Liberalisation.

Measured at specific benchmark years, the number of foreign companies and of their subsidiaries in Switzerland increased throughout the period (Table 3). There was no decline during the interwar period, not even during the depression of the 1930s, as is often assumed in the literature. In the period from 1900-1976, 24% stayed between 1 and 4 years, 19% between 5 and 10 years, 34% 10 and more years. Of the 38 subsidiaries listed in 1901, 34 were still present in Switzerland at the end of the period, and 21% were established only in 1970.

For most subsidiaries, the mode of entry is unknown in 1901 and 1919. Subsequently, most companies were newly formed or acquired, besides a few mergers and break-ups. In comparison with the number of entries, the number of sold and liquidated companies was rather small. Most subsidiaries were either fully owned by the parent company or the parent had a majority of the share capital. For quite a large number of companies the ownership structure is unknown.

Table 3: Largest foreign enterprises in Switzerland 1901-1970

		1901	1919	1929	1939	1953	1967	1970
Number of parent companies		25	25	32	41	44	85	103
Number of subsidiaries		38	42	70	91	88	232	355
Ownership	No Info	24	26	40	51	33	57	64
	≥95%	9	10	20	28	37	115	189
	>50%. <95%	1	1	3	4	6	19	35
	50%	1	1	2	2	3	15	21
	>25%, <50%	1	2	2	2	4	12	24
	>5%, <25%	2	2	3	4	5	14	22
Entry mode	newly formed	3	5	21	34	32	111	141
	acquired	2	4	13	16	9	56	86
	merger or breakup	0	0	0	1	7	10	11
	no information	33	33	36	40	40	55	117
Exit mode	sold	0	2	3	3	12	13	18
	liquidated	0	0	0	0	9	12	26
	no information	0	0	0	1	7	7	12
Primary activity	No Info	55.3%	50.0%	32.9%	29.7%	31.8%	27.2%	25.6%
	Manufacturing	13.2%	16.7%	24.3%	24.2%	18.2%	19.4%	16.1%
	Sales or Service	13.2%	14.3%	22.9%	22.0%	26.1%	28.2%	28.7%
	Extraction	0.0%	0.0%	1.4%	1.1%	1.1%	1.0%	0.3%
	Other	18.4%	19.0%	18.6%	23.1%	22.7%	24.3%	28.7%
	Inactive	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%

Source: Harvard Business School Database, FOREMY.

The distribution by primary activity reveals that before World War II the share of foreign subsidiaries engaged in manufacturing and in sales and services activities was about the same, in the post-war decades the investments in sales and services were higher. We do no know in which industries the subsidiaries were active in, except for the subsidiaries of US companies for which such information is available. The US companies were mainly active in: food, chemicals and allied products, petroleum refining, industrial and commercial machinery. But we assume that most of these companies were sales offices and did not actually produce these goods in Switzerland.[16]

For the foreign firms the reasons for establishing manufacturing companies in Switzerland were similar to those of the Swiss firms, namely to avoid import restrictions, but the small Swiss market was of minor importance for foreign MNE and they usually established sales and service centres and only exceptionally manufacturing facilities. Examples for the establishment of foreign manufacturing firms in the interwar period are the Czechoslovakian shoe producer Bata[17], the US General Motors[18] and Triumph[19], a German textile manufacturer. Philipps and IBM established sales and service centres in the 1920s, and IBM founded its first foreign research laboratory in Switzerland near Zurich in the early 1950s.

Table 4: Largest foreign MNE in small European countries

	Switzerland		Netherlands		Belgium		Sweden		Norway		Denmark	
	parent	subs	parent	subs	parent	subs	parent	subs	parent	subs	parent	subs
1901	25	38	18	26	24	53	8	13	16	15	9	13
1919	25	42	23	31	30	63	10	17	22	19	16	21
1929	32	70	33	55	39	89	17	27	31	28	21	30
1939	41	91	45	76	44	105	20	33	35	42	24	43
1953	44	88	47	71	51	124	24	45	32	42	25	49
1967	85	232	89	227	89	297	56	135	70	88	50	125
1970	103	355	106	376	108	456	68	197	96	131	56	146

Source: Harvard Business School Database, FOREMY.

16 Margrit Müller, „The Case of US Companies in Switzerland", in Hubert Bonin et al. (eds.) *US Companies in Europe* (forthcoming).

17 Bata established a manufacturing plant in Möhlin, Switzerland, in the mids of the depression. The company was welcomed by the local population, because it created employment, but an unwelcome competitor for the Swiss shoe producers.

18 General Motors established an assembly plan in Biel, Switzerland, in the 1930s. See Müller, The Case of US companies.

19 In 1926, the company established its first factory abroad in Zurzach, Switzerland, just over the German border. Geschichte von Triumph International, Daten und Fakten, cited in Dirk Stingelin, Fallstudie Triumph International: Schritte der Globalisierung, Mscr., Institut für Empirische Wirtschaftsforschung, June 2005.

In Table 4, the number of foreign MNE and their subsidiaries in Switzerland are compared with those in other small European countries. With regard to the number of parent companies, the position of Switzerland is comparable to that of the Netherlands and Belgium. Up until 1957, the number of foreign subsidiaries is lower than in Belgium but somewhat higher then in the Netherlands. The continuous expansion throughout the interwar period and the rapid expansion from 1953 onwards are confirmed for all the countries.

3. Accelerated internationalisation since the 1960s

The Swiss National Bank has published data on inward and outward flows and stocks of FDI since 1985 and on their distribution by countries and industries since 1993. Some estimates are available since 1966.[20] Even if reliable figures on the amount of FDI were not available in the early 1960s, the fact that the activities of the main MNE were much larger in foreign countries than at home was well known, and it was not a matter of concern, on the contrary: in the years of high growth and shortage of resources, especially labour, it was perceived as a welcome means to relieve competitive pressure on resources in the domestic market and reduce the need for immigrant labour. In the early 1960s the main business association, the Federation for Trade and Industry recommended Swiss firms to shift production abroad and it reported that also the Trade Unions agreed with such a policy.[21] At the EXPO 1964 (the main national fair held every 20 or 30 years in different places in Switzerland), the large multinational companies presented themselves and their business activities abroad, and almost 750'000 persons visited their "Pavillon". [22] At that time foreign controlled holding companies had been criticised as companies which took advantage of the low taxes in Switzerland – a fact also criticised by foreign governments - and contributed little to the national economy. It was therefore important to demonstrate that the IH-companies were different, that they were long-established Swiss companies and that their activities were an essential contribution to the Swiss economy. Especially the fact that in *per capita* terms the Swiss stock of FDI was larger

[20] Henry Krägenau, *Internationale Direktinvestitionen, 1950-1973: vergleichende Untersuchung und statistische Materialien,* Hamburg: Weltarchiv, 1975; Henry Krägenau, *Internationale Direktinvestitionen: Ergänzungsband 1978/79,* Hamburg: Weltarchiv, 1979; Henry Krägenau, *Internationale Direktinvestitionen,* Hamburg: Weltarchiv, 1978; Kurt Peyer, Ausmass und Bedeutung des Auslandkapitals in der Schweiz. Dissertation, Zürich, 1971.
[21] Industrie-Holding, 22. Jahresbericht 1964, Schweizerische industrielle Tätigkeit im Ausland.
[22] Industrie-Holding, 22. Jahresbericht 1964, Schweizerische Landesausstellung.

than that of the US seems to have impressed the visitors.[23] In the 1980s some publications from economists on the international activities of Swiss companies reinforced the notion that the activities of Swiss firms abroad were an integral part of the Swiss economy and contributed decisively to its overall success.[24] The empirical basis on which such arguments relied was shaky and the historical perspective completely lacking. But empirical research was probably not needed at the time, because the positive relationship seemed well grounded in economic theory.

Since the late 1990s a number of empirical analyses on the impact of globalisation on the domestic economy and its competitiveness in the international context have been published.[25] So, other dimensions of international economic involvement than trade have gradually been taken into account, but all these studies concentrate on outward FDI and on the 1990s. By then, the attitude towards OFDI had changed compared with the 1960s: the "deindustrialisation" of Switzerland and the "exodus" of Swiss firms –even those of medium size – were matters of increasing concern. The question how to make the domestic environment more compatible with the needs of the large Swiss MNE became a major topic and – with some delay – the rather low stock of IFDI compared with other European countries was something that needed explanation.

To what extent is the recent process of internationalisation comparable or different from earlier decades, and have foreign companies been such a negligible entity in Switzerland as the state of research seems to suggest?

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[23] The IH calculated an amount of FDI per capita of 2050 CHF for Switzerland, 790 for Great Britain, 760 for the USA, 100 for Germany and 80 for Denmark.

[24] Frank Wehrle, *Veränderungen der weltwirtschaftlichen Rahmenbedingungen und die Internationalisierung der Schweizer Industrie,* Basel, 1983; Silvio Borner/Frank Wehrle*, Die sechste Schweiz. Überleben auf dem Weltmarkt,* Zürich: Orell Füssli, 1984; Silvio Borner, *Internationalization of Industry. An Assessment in the Light of a Small Open Economy (Switzerland),* Berlin, 1985.

[25] Silvio Borner/Frank Dietler/Stephan Mumenthaler, *Die internationale Wettbewerbsfähigkeit der Schweiz. Irrungen, Verwirrungen, Auswege,* Zürich: Verlag Ruegger, 1997; Spyros Arvanitis und Daniel Staib, *Untersuchung der internationalen Wettbewerbsfähigkeit der schweizerischen Wirtschaftszweige anhand einer "constant market shares"-Analyse der Exportanteile.* Studie im Auftrag des Staatssekretariats für Wirtschaft, Strukturberichterstattung Nr. 2. Bern: SECO, 2001; Spyro Arvanitis/M. Bezzola/L. Donzé/H. Hollenstein/D. Marmet, *Die Internationalisierung der Schweizer Wirtschaft: Ausmass, Motive, Auswirkungen,* Zürich: vdf Hochschulverlag, 2001; Heinz Hollenstein, *Patterns and determinants of international activities: Are SMEs Different? An Empirical Analysis Based on Firm-level Data for the Swiss Business Sector.* Arbeitspapiere / Konjunkturforschungsstelle, Eidgenössische Technische Hochschule Zürich; no. 58, ETH, Eidgenössische Technische Hochschule Zürich, Konjunkturforschungsstelle: Zürich, 2002.

3.1 Swiss firms in foreign countries

The results presented in this section have to be considered as preliminary, they will be expanded and partly revised in the course of further research. In this paper we shall concentrate on the activities of the main Swiss multinationals in foreign countries, namely the member firms of the Industrie-Holding (IH). These firms, the industries they were active in and the years when they entered or left the association are listed in Table A2 in the appendix. Up until the 1990s, only firms of the manufacturing sector were admitted as members, firms from the service sector and especially from the financial sector were excluded.

The IH was founded in 1942 - in the midst of World War II - by eight Swiss MNE in the manufacturing sector. All the major chemical firms in Basle joined the association until 1950, the main MNE of the machine industry followed during the 1960s. The criteria for membership figuring in one of the first available annual reports stressed the Swiss character of the firms. The main shareholders had to be Swiss and the industrial "Stammhaus" had to be located in Switzerland. The other main criteria were several foreign investments, usually in the form of affiliates, and the foreign business had to be an important share of the total business activities of the firm.[26]

Quite a number of firms left the association until the 1990s, in several cases because they were taken over by another Swiss MNE. From the late 1980s onwards, modifications of company names, takeovers and disinvestments became more frequent, and we can even perceive a new phenomenon: Swiss MNE were taken over by foreign companies and the resulting foreign subsidiaries remained member firms of the IH. Finally, in June 2006, the name of the association was changed to "SwissHoldings", and also the membership criteria were adapted in order to include firms of the service sector and subsidiary companies of foreign MNE. Compared with the 1970s, the membership criteria had shifted from focusing on the Swiss character of the MNE to their location in Switzerland. The need to distinguish the Swiss MNE from the foreign controlled MNE had completely disappeared and the common concern with favourable location-specific conditions for companies with an important international business came to the fore. Another remarkable aspect is the large number of new firms joining the association since the beginning of the 1990s, in comparison with the stable membership structure during the earlier decades. But notwithstanding the

[26] Industrie-Holding, 35. Jahresbericht 1977, p. 4

strong increase in the number of companies, their total number of employees in Switzerland remained about the same (see below).

The main purpose of the IH has been to support measures aiming at protecting direct investments and financial interests of the member firms in foreign countries. In the 1950s and 1960s the main requests were favourable taxes for holding companies in Switzerland and the conclusion of international agreements on double taxation (Doppelbesteuerungsabkommen). An unwelcomed effect was that such agreements attracted foreign-controlled holding companies. Since 1967 annual reports are available. The number of topics dealt with increased, international organisations, especially the OECD, and its investigations on the activities of MNE in developing countries were regularly commented on, but taxes and international agreements on questions related with the financial aspects of FDI remained the main topics. From the late 1980s onwards the process of European integration and its consequences for companies located in Switzerland was another matter of concern.

The annual reports of the association contain some quantifications of the relative importance of the international activities of the member firms in comparison with the non-member firms:
- In the period 1990-2005 the share of the member firms in the overall stock exchange capitalisation fluctuated around 50%. Their share in the market capitalisation of the manufacturing sector was about 80% until 1995. From then on, some firms of the service sector began to enter the association.
- The share of the member firms in the total stock of FDI declined from 61% in 1987 to 34% in 1995, the share in total FDI of the manufacturing sector declined from 89% in 1987 to 67% in 1995. Until 2000 their share in total FDI fell to 21% and then increased to 27% in 2005. This decline was mainly due to the rapid increase of FDI of firms in the service sector. Only few firms of this sector joined the association, and financial companies – the firms expanding most rapidly abroad - were still excluded from membership. In 2005 the total stock of FDI had increased by 1000%, the stock of FDI in services by over 1900%.
- The most interesting figures published in the annual reports are those on the number of employees, because they allow comparing the growth of the firms in Switzerland with their expansion in foreign countries. In the thirty years between 1975 and 2005 the number of employees of the member firms increased almost continuously and without major setbacks from about 530.000 (118.000 in Switzerland) to 950.000 (112.000 in Switzerland). The share of their employees in Switzerland remained stable at 22% until 1987, then declined to 15% in

1995 and reached a mere 12% in 2005. In absolute figures employment in Switzerland fluctuated around 120.000 and 140.000 with an exceptional maximum of 152.000 in 1995. The share of the member firms in the number of employees in foreign countries was 65% in 1987 and 42% in 2005, their share in total employees of the manufacturing sector was over 80% between 1987 and 1995. These figures demonstrate the importance of the member firms since the 1970s, and it seems reasonable to assume that their weight with regard to OFDI was even higher in the previous decades.

Case studies, mainly based on annual reports, and company histories of quite a number of "core companies" are available. In the post-World-War II decades the firms continued to pursue the growth strategies adopted in the period of protectionism during the interwar years. In the food-processing industry the large MNE took over smaller domestic companies and expanded production abroad. Also in the chemical and the machine industries the incentives to shift production abroad persisted, but the objectives pursued changed radically. Whereas overcoming trade barriers had been the main motive during the interwar years, the main push and pull factors in a context of trade liberalisation and rapid economic growth were the extreme shortage of labour in Switzerland and the advantages of producing in specific foreign countries, such as gaining easier access to large markets or being able to participate in advanced scientific research: increasingly, R&D activities were taken up by foreign subsidiaries. In the watch industry, even the largest firms established few manufacturing centres outside Switzerland up until the 1990s and those established in the early 1970s were not successful. Also in the case of the main insurance companies a continuous pattern of internationalisation can be observed. The number of foreign subsidiaries of the Swiss banks increased somewhat slowly up to the late 1960s, but in the following decade the pace of internationalisation accelerated and large Swiss banks extended their foreign branch network considerably.

A rather surprising aspect is that the regional distribution of FDI of the member firms remained quite stable with regard to the main areas, Europe and the US (Table 5). But since the number of member states in the EU increased, its importance as a location for FDI of the large Swiss MNE must have declined. The share of Latin America shows a pronounced increase in the early 1990s, but little change in the long term. Even Asia's share in FDI was rather stable in relative terms, except for the number of employees: investments in Asian countries have been more labour intensive. This has also been the case for the investments in central and eastern Europe, which reach a maximum in 2002 and 2003. The subsequent decline is due to the enlargement of the EU.

Table 5: Geographical Distribution of Foreign Direct Investment and Personnel abroad of the Member Companies of the "Industrie-Holding"

	EU		USA / Canada		Latin America		Asia		Others	
	FDI	Personnel	FDI	Personnel	FDI	Personnel	FDI	Personnel	FDI	Personnel
1989	42.0%	43.2%	22.8%	19.4%	16.2%	12.1%	7.5%	9.7%	11.5%	15.6%
1995	47.7%	44.6%	23.0%	19.6%	12.6%	11.4%	9.0%	11.4%	7.6%	13.0%
2000	39.5%	41.6%	31.1%	18.7%	12.1%	11.6%	9.2%	13.8%	8.2%	14.4%
2005	36.2%	39.3%	28.1%	19.3%	15.0%	14.1%	8.6%	17.2%	12.1%	10.1%

After this broad overview, we analyse more closely the pattern of internationalisation on the firm-level in two industries: chemicals and machinery. What was the relationship between investments and employment at home and abroad? In which countries did the firms establish affiliates, and what activities were undertaken in specific foreign countries and in Switzerland? The available data on firms in the machine industry is still very limited and will serve only for comparative purposes.

The analysis of FDI in chemicals-pharmaceuticals comprises the largest firms in this industry: Ciba-Geigy, Sandoz and Roche. In the case of Ciba-Geigy the average share of Switzerland in total employment was between 35 and 30% in the 1960s, and about 28% in the 1970s and 1980s. In 1992, this share was still almost 25%. Subsequently the employment figures published in the annual reports include Switzerland in “Europe”. In absolute figures employment in Switzerland fluctuated around 22’000 since the early 1970s. Since the 1980s the number of employees increased only in North America and especially in Asia. The share of the “Stammhaus” of Sandoz in Basel declined continuously from 44% in 1961 to 11% in 1994. The number of employees increased from about 5000 to a maximum of over 9700 until 1973. In 1994, the year before Sandoz merged with Ciba-Geigy, it employed 6676 persons in Switzerland and 53.631 abroad. In relative terms employment increased only in the US and Canada, while Asia’s share was slightly reduced. Employment figures of Roche are available only since 1977. The share of Switzerland in total employment was quite stable up until 1996, fluctuating around 20%, but subsequently it declined to 11% in 2004. In absolute figures employment in Switzerland increased from about 9000 in 1977 to almost 11000 in 1991. Subsequently employment declined gradually to 9700 until the end of the century. Between 2000 and 1994 employment in Switzerland declined to 7500. In the period 1977-2004, the share of Europe and the US increased very slightly, while the share in Asia more than doubled. In 2000, the distribution of the employees of the "top-ten" chemical companies by region was: 14% in Switzerland, 36% in Europe 33% in America and 17% in Asia, Africa and Australia. We may therefore conclude that the rapid decline in relative terms in the case of Roche is typical for all the large MNE in the chemical industry. In absolute figures total employment of the three firms doubled from about 100'000 in 1971 to 200'000 in 1992, and employment in Switzerland increased by about a third. The growth of employment abroad was paralleled by a somewhat slower growth at home up until the early 1990s. From then on this relationship changed to expanding employment abroad and downsizing at home.

The relative decline of domestic employment in the machine industry was more pronounced. In the case of Schindler this share was about 30% in the early 1970s, at the beginning of the 1990s it had declined to less than 20% and in 2006 to a mere 10%. While the total number of employees doubled between 1970 and 2006, the number of employees in Switzerland shrunk from 7000 to 4000. Sulzer's share of employees in Switzerland was 60% in the late 1960s and 28% in 2000. The international expansion was concentrated on North America and Asia. Rieter is an interesting case because its internationalisation began late in 1985. Being a latecomer in the process of internationalisation, the firm had to catch up rapidly. The share of employees in Switzerland shrank from 46% in 1986 to 22% in 1995.

The total number of foreign subsidiaries of the chemical firms increased between 1970 and 1990, but only Sandoz made a major spurt between 1980 an 1990 and almost doubled the number of its foreign subsidiaries. Most foreign manufacturing companies were located in Europe (around 45%). A considerable number of manufacturing companies were located in South America (about 20% in 1980 and 1990), and the number of manufacturing companies in Asia almost doubled. About 20% of all subsidiaries engaged in R&D were located in North America and about 60% in Europe. Very few subsidiaries were engaged in R&D in other world regions in 1980 and in 1990. The number of countries with foreign subsidiaries increased from about 40 to over 50 (Roche and Sandoz) and from 52 to 60 (Ciba). The number of subsidiary companies of the firms in the machine industry was much lower, but also in this industry most manufacturing subsidiaries were located in European countries (over two thirds in 1980 and about half in 1990).

As has already been mentioned above, discontinuities marked the development of the major Swiss MNE in the 1990s. The change is clearly visible in Table A2 in the Appendix. Case studies on several important MNE reveal that in the period of accelerated globalisation the broad product diversification became a burden: already in the 1980s companies gradually began to focus more on what they perceived as their core competencies, but in the 1990s also more radical processes of restructuring took place, especially in the chemical industry and also in the machine and electrical industries. FDI were made in the new form of transnational mergers and acquisitions, usually combined with disinvestments Concomitantly, also firms of the service sector, which had previously focused on the domestic market, became multinationals and in some cases members of the IH. On the firm-level, the distinction between Switzerland and other countries in the annual reports often disappears: the figures on Switzerland are integrated into Europe. Where figures are still available – for example for Roche – the relative decline of the home base is very obvious.

3.2 Foreign firms in Switzerland

As for the earlier period, there is little information available on the activities of foreign firms in Switzerland, and systematic research has been completely lacking, apart from statistical data published by the SNB on IFDI and their distribution by country or industry since 1993. The number of employees of foreign firms in Switzerland are published only since 2001. Obviously, foreign companies were considered of minor importance for the Swiss economy until quite recently. In comparison with other small European countries the ratio of OFDI/GDP (111% in 2003) has been higher and the ratio of IFDI/GDP (50% in 2003) lower. The annual reports of the IH begin to mention such firms in the 1990s, mainly with the purpose of underlining their own claims for more favourable conditions for multinational companies in Switzerland.

On the basis of annual publications on the ownership structures of the firms located in Switzerland it has been possible to select the foreign subsidiaries and their parent companies at three benchmark years: 1983, 1989, 2000 (Table 6). The strong increase in the total number of parent companies and subsidiaries is partly due to the fact that in the early 1980s the WOW-yearbooks were far from complete, and between 1989 and 2000 the minimum amount of share capital was reduced from 1 million to 500.000 CHF. The analysis of all US companies in Switzerland, for example, based on other sources, has shown a rather stable number of companies – in 1983 and 2003 (see the next section). Since the basis on which the companies have been selected changed between these two benchmark years, we have to concentrate mainly on the relative dimensions.

Table 6: Home countries of subsidiaries in Switzerland

	1983		1989		2000	
Total Europe	468	71.2%	1221	72.3%	2955	76.2%
Germany	144	21.9%	417	24.7%	1016	26.2%
Fance	68	10.4%	158	9.4%	379	9.8%
United Kingdom	67	10.2%	122	7.2%	299	7.7%
Netherlands	45	6.8%	138	8.2%	349	9.0%
Italy	32	4.9%	87	5.2%	185	4.8%
Sweden	26	4.0%	59	3.5%	100	2.6%
Luxembourg	22	3.3%	45	2.7%	86	2.2%
Belgium	19	2.9%	41	2.4%	71	1.8%
Austria	14	2.1%	36	2.1%	140	3.6%
Denmark	9	1.4%	26	1.5%	53	1.4%
Other European Countries	22	3.3%	92	5.5%	277	7.1%
Total Asia	26	4.0%	110	6.5%	151	3.9%
Japan	16	2.4%	63	3.7%	53	1.4%
Other Asian Countries	10	1.5%	47	2.8%	98	2.5%
Total North America	142	21.6%	307	18.2%	678	17.5%
South America	8	1.2%	34	2.0%	68	1.8%
Africa	12	1.8%	12	0.7%	26	0.7%
Australia	1	0.2%	4	0.2%	2	0.1%
Total subsidiary companies	**657**		**1688**		**3880**	
Total parent companies	**594**		**1501**		**3474**	

Sources:
Bär, Ulrich/Saager, Hansjürg/Sigrist, Christa (2000): Who Owns Whom 2000, Der Schweizerische Beteiligungsatlas, Orell Füssli, Zürich; Saager, Hansjürg et al. (1989): Who Owns Whom, Der Schweizerische Beteiligungsatlas, U. Bär Verlag, Zürich; Saager, Hansjürg et al. (1983): Who Owns Whom, Der Schweizerische Beteiligungsatlas, U. Bär Verlag, Zürich.

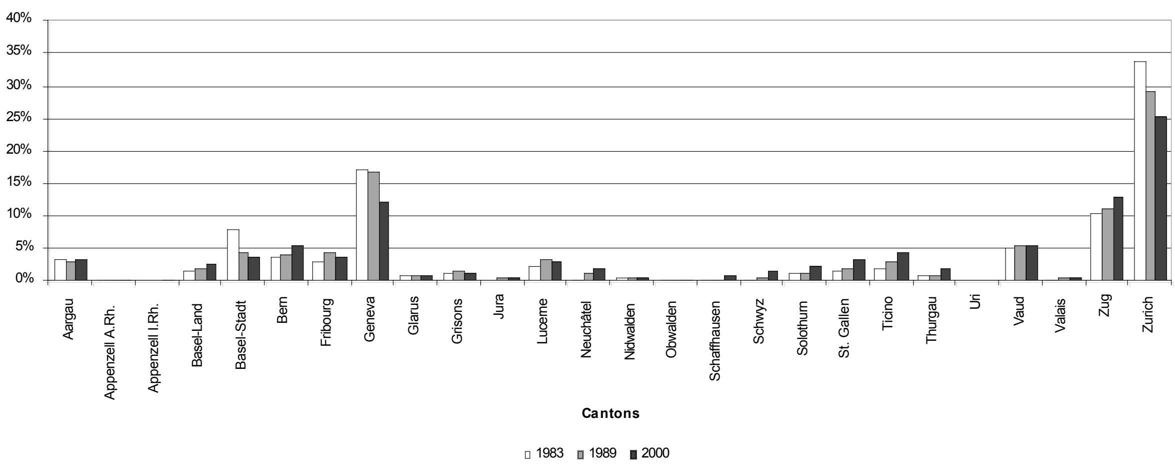
The overall distribution by country of origin shows little change: With over 20% the German firms are in the lead, followed by the USA, France, Great Britain, the Netherlands and Italy. There are few changes which stand out: In most countries and world regions the number of companies increased throughout the period, only in Japan the number declines between 1989-

2000; the number of Austrian subsidiary companies makes a pronounced leap between 1989 and 2000.

Measured by their share capital, most of these subsidiary companies were rather small: in 1983 only 6% had a share capital over 100 million, and in 1989 and 2000 this share was less then 4%; 67% had a share capital of up to 10 million CHF in 1983, in 1989 it increased to 77%, and in 2003 to 85%, mainly because of the large increase of subsidiaries with a share capital of less then one million CHF (33% in 1989, 49% in 2000). Most subsidiaries were fully owned by the parent company (44% in 1983 and 56% in 2000) or the parent company owned 50% and more of the share capital (26% in 1983, 15% in 2000).

The location of the foreign subsidiaries in Switzerland is represented in Figure 2 and of the German, French and Italian firms in Figures 3-5. The distribution is rather broad, but most firms are concentrated in a few preferred cantons: Zurich leads, before Geneva and the two half-cantons of Basel, but the share of these preferred locations has declined since 1983. Of the other cantons only two have a share above 5%, and seven have less than 1%.

Figure 2: Foreign Companies in Swiss Cantons



The location of the German and French firms is interesting, because they are concentrated in the German or French part of Switzeralnd. Especially German firms have a clear preference for the German speaking cantons. The choice of location of the Italian firms is less one-sided, but a considerable share of their subsidiaries is located in the canton Ticino. Geographical proximity may to some extent explain the country-specific choice of location, but language proximity has probably been more important.

Figure 3: German companies in Switzerland

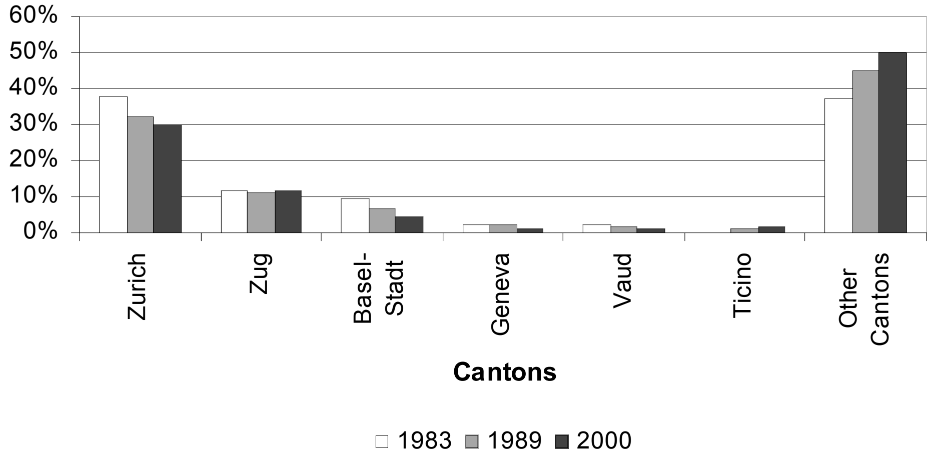


Figure 4: French companies in Switzerland

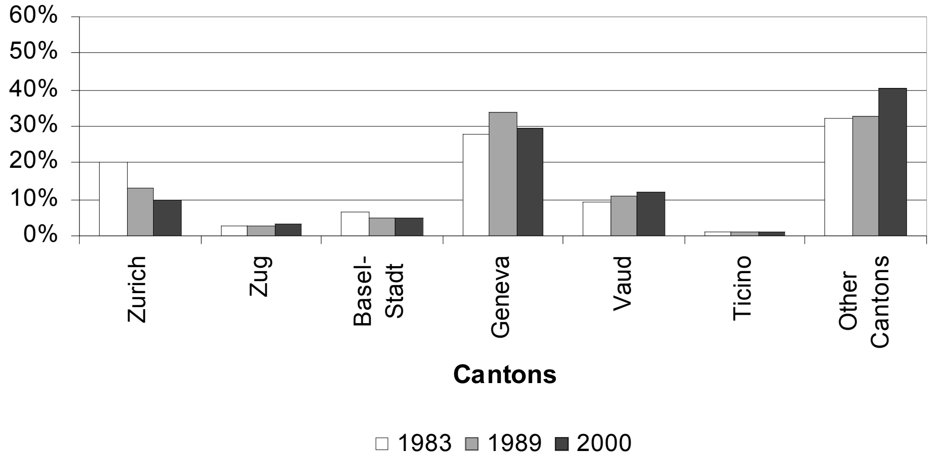
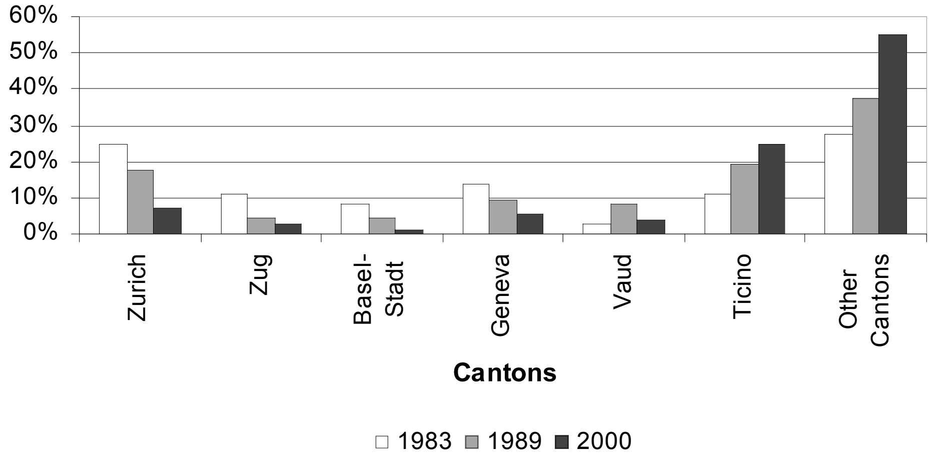


Figure 5: Italian companies in Switzerland



The distribution by industry and functions of the foreign subsidiaries in Switzerland is subject of current research. The main problem is to standardise the large number of activities indicated in the yearbooks and make them compatible with other sources. For a large number of US companies, the number of employees, the industry and the main activities in Switzerland have been published in the Yearbooks of the Swiss-American Chamber of Commerce. Similar information is available for the German companies in Switzerland, but only for the year 1991.[27]

The notion that – measured with their share capital - most foreign companies in Switzerland were rather small, is confirmed for the German and US companies, if their size is measured by the number of employees. Of the German companies present in 1991, about 30% had 1-10 employees, about 50% had 11-100 employees, 11% between 101-500 and only 4 companies (1,1%) had more than 500 employees. For the US companies the size distribution in 1983 is quite similar, with a slight increase of the share of the larger firms in 2003 (figures in brackets): 35 (27)% had 1-10 employees, 50 (47)% 11 to 100, 12(20)% 101-500 and only 3(4)% had over 500 employees.

The distribution by activities shows that of the German firms about 45% were engaged in sales activities and only 22% in manufacturing. This relationship can be roughly estimated at 35% to 14% for the US companies in 1983 and at 38% to 18% in 2003. In finance and insurance there are few German companies (3%), and considerably more US companies: 18% in 1983 and 16% in 2003. The share of German firms in the service sector is 15% in 1991, the share of the US companies is 22% in 1983 and 35% in 2003. The preferred locations of the US companies in both years were Zurich, with almost 40%, and Zug with 10% in 1983 and 7% in 1933. In the French part of Switzerland Geneva attracted 22% of the US companies in 1983 and 17% in 2003, the Canton of Vaud 7% in both years.

5. Preliminary conclusions and outlook on further research

In a comparative perspective Switzerland had a rather large number of domestic MNE already at the beginning of the twentieth century. Most of the „core-companies“ belonged to the textile industry. The distribution by industry of the "core companies" changed considerably

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[27] Handelskammer Deutschland-Schweiz, Tochtergesellschaften Deutscher Unternehmen in der Schweiz, 2. Auflage 1991/92, Zürichsee Druckerei Stäfa, Zürich 1991.

after World War I, the distribution of all Swiss MNE was more stable. Further research should allow comparing – for a selection of firms - the development of companies abroad with their development at home. It seems that during the period 1919-1953 the outward orientation of the Swiss MNE was stronger than in other small European countries - especially with regard to the considerable number of MNE of medium size -, but this is still a question for further research.

The number of foreign parent and subsidiary companies in the period 1919-1975 was comparable to that of other highly internationalised small European countries. Further research will trace the development of the foreign subsidiaries more closely (where and when have they been established, what were their activities in Switzerland, etc.) for a selection of companies. At the present state of research we conclude that manufacturing activities were rare and limited to those industries where trade barriers were introduced in Switzerland in order to protect the domestic firms from import competition. The foreign companies were mainly attracted by the demand side of the Swiss market, notwithstanding its small size, and only exceptionally by location-specific advantages on the supply side. This can be explained partly by the rather high level of production costs (especially wages) in comparison with other European countries, but also with the fact that in this period the Swiss companies had the capacity to exploit the domestic resources and opportunities for growth themselves. Dependence on foreign capital had been higher in the late nineteenth century. Another barrier of entry for foreign companies was that international mergers and acquisitions were rare and hampered by corporate rules allowing to control the influence of foreign shareholders and avoid unfriendly takeovers.

In the period of accelerated internationalisation one phenomenon stands out: the remarkable break in the composition and development of the core Swiss MNE in the 1990s compared with the very stable pattern since the interwar Period. In the course of further research we shall expand the analysis of “core companies” on the firm level. Another possibility to obtain information on the activities of Swiss MNE abroad is to focus on the activities of Swiss MNE in those countries with the largest share of FDI, especially the USA and Germany, and the large neighbouring countries France and Italy. To some extent we shall be able to recur on the ongoing research in other countries, for example the research on foreign companies in Italy by Andrea Colli presented in the same section of the EBHA conference.

The data available on foreign companies in Switzerland since the 1980s have shown that the majority of these companies were rather small and concentrated in a few urban cantons. Their impact is difficult to assess at the current state of research. In order to evaluate the contribution of foreign firms to the national economy – besides employment – we have to know more about their activities in Switzerland. This will be possible for a selection of foreign companies from various countries and for the firms from the two countries with the largest number of subsidiaries in Switzerland, the USA and Germany. Some preliminary results with a focus on these two countries have been presented above.

At the current state of research it seems reasonable to conclude, that in Switzerland the recent process of internationalisation since the late 1980s has indeed been different. Since 1919, and especially in the post-World War II decades the same rather small number of large Swiss companies active in a few outward-oriented industries formed the core of the Swiss "MNE sector". We may distinguish between a Chandlerian pattern of development, characterised by the continued dominance of these leading firms up until the late 1980s, and an evolutionary or Schumpeterian environment, characterised by a considerable reshuffling among the large MNE and the rising importance of smaller firms – of domestic and foreign origin - and of firms of the service sector. Foreign firms did not have a prominent role in the Swiss economy throughout the twentieth century, but their impact may still have been considerable, especially in those sectors where the competitiveness of domestic companies was weak. And their importance has clearly been increasing. Further research should allow to evaluate their role in the Swiss economy more accurately.

Table A1: Core Multinational Enterprises 1919-1953
* Core MNE in the period before 1914
IH: Member firrms of the Industrie-Holding

Industry (31)

Machines and electrical machinery (11)
BBC* (IH)
Cortaillod*
Dubied*
Escher-Wyss*
Gardy*
Georg Fischer
Maschinenfabrik Bühler
MFO
Saurer*
Schindler (IH)
Sulzer* (IH)

Chemicals-pharmaceutical, electrochemicals (6)
Ciba* (IH)
Geigy* (IH)
Lonza
Roche (IH)
Sandoz (IH)
Wander (Glaro IH)

Processed and canned food (5)
Hero* (IH)
Maggi* (IH)
Nestlé* (IH)
Suchard* (IH)
Tobler

Building material (3)
Ciment Portland
Holderbank (IH)
Likonia

Textiles (3)
AGUT*
Mechanische Seidenstoffweberei*
Sastig*

Metal processing (1)
AIAG* (IH)

Watches (1)
Zénith

Shoes (1)
Bally (IH)

Services (13)

Trading companies (4)
André
Diethelm & Co. AG
Reinhart
Volkart

Insurance companies (5)
Helvetia
Neuchâteloise
Schweizerische Rückversicherung
Winterthur Versicherungen
Zürich Versicherungen

Banks (3)
SBG
SBV
SKA

Media (1)
Ringier

Table A2: Industrie-Holding Member Firms 1942 - 2006

Sources: information on the firms listed in 1942: Annual report 1967; on the firms that joined until 1950: Letter of the IH to the Département Politique Fédéral; Annual reports 1964 and 1967-2006.

* = foreign subsidiary

Company name	Canton	Industry	entry	exit
Schweizerische Aluminium AG, Zürich	Zurich	metal processing	1942	1988
Alusuisse-Lonza AG, Zürich; 1991: Alusuisse Lonza Holding AG; 1998: Alusuisse-Lonza Group AG; 2000: Alusuisse Group AG	Zurich	metal processing	1989	2000-01
Lonza Group AG, Basel (disinvestment of Alusuisse-Lonza AG)	Basel-Stadt	chemicals	2000-01	
* Alcan Holdings Switzerland Ltd, Zürich (takeover of Alusuisse)	Zurich	metal processing	2001-02	
C.F. Bally AG, Zürich	Zurich	shoes	1942	1976
Elektro-Watt AG, Zürich (1975: Elektrowatt AG, Zürich)	Zurich	electricity	1942	1997
Landis & Gyr AG, Zug	Zug	precision instruments	1994	1995
* Siemens Building Technologies AG, Zürich (2004-05: Siemens Schweiz AG, Building Technologies Group, Zürich)	Zurich	electronics	1998	
„Holderbank" Financière Glarus AG, Glarus (since 2000-01: Holcim Ltd, Jona)	Glarus	building material	1942	
Néstle Alimentana AG, Vevey (since 1977: Nestlé AG, Vevey)	Vaud	processed and canned food	1942	
Glaro AG, Bern	Bern	chemicals, pharmaceuticals	1942	1983
Suchard Holding Aktiengesellschaft, Lausanne	Vaud	food, chocolate	1942	1969
Interfood AG, Lausanne, merger of Suchard and Tobler	Vaud	food, chocolate	1970	1981
* Jacobs Suchard AG, Zürich, merger of Interfood and Jacobs	Zurich	food, chocolate	1982	1989
Ursina AG, Konolfingen, merged with Nestlé in 1970	Bern	food	1942	1970
SAPAG Société Anonyme de Participations Appareillage Grardy, Neuchatel	Neuchâtel	electrotechnical machinery	1950	
* Hero Conserven Lenzburg, Lenzburg --Oetker D?	Aargau	processed and canned food	1950	1989
Sika Holding AG, Glarus (1968: Sika Finanz AG, Baar; 2001-02: Sika AG, Baar)	Glarus	building material	1950	
Sandoz AG, Basel	Basel-Stadt	chemicals-pharmaceuticals	1950	1995
Ciba Aktiengesellschaft, Basel (merged with Geigy in 1970)	Basel-Stadt	chemicals-pharmaceuticals	1950	1969
J.R. Geigy AG, Basel (merged with Ciba in 1970)	Basel-Stadt	chemicals-pharmaceuticals	1950	1969
Ciba-Geigy AG, Basel	Basel-Stadt	chemicals-pharmaceuticals	1970	1995

Novartis AG, Basel (merger of Ciba and Sandoz)	Basel-Stadt	chemicals-pharmaceuticals	1996	
Clariant AG, Muttenz (2004-05: Clariant International Ltd., Muttenz)	Basel-Land	chemicals	2002-03	
Ciba Spezialitätenchemie Holding AG, Basel	Basel-Stadt	chemicals	1996	
Syngenta AG, Basel	Basel-Stadt	chemicals	2000-01	
F. Hoffmann-La Roche & Co. Aktiengesellschaft, Basel; 1989: Roche Holding AG, Basel	Basel-Stadt	chemicals, pharmaceuticals	1950	
BBC Brown Boveri AG, Baden	Aargau	electrotechnical machinery	1964	1994
ABB Asea Brown Boveri AG, Zürich	Zurich	electrotechnical machinery	1995	1998
ABB Ltd, Zürich (merger of BBC with ASEA)	Zurich	electrotechnical machinery	1999-00	
Maggi-Unternehmungen AG, Kemptthal (integrated in Nestlé in 1947)	Zurich	processed and canned food	1950	1982
Gebrüder Sulzer AG, Winterthur (1992: Sulzer AG, Winterthur)	Zurich	machines	1967	
Amiantus AG, Niederurnen (1985: Anova Holding AG, Niederurnen)	Glarus	building material	1971	1994
Luwa AG, Zürich	Zurich	metals, machines	1972	1977
* Oerlikon-Bührle Holding AG, Zürich (1999: Unaxis Holding AG, Zurich)	Zurich	machines	1977	
Gebrüder Bühler AG, Uzwil (1989: Bühler AG, Uzwil)	Sankt Gallen	machines	1978	
Hesta AG, Zug	Zug	machines	1978	
Keramik Holidng AG, Laufen	Basel-Land	ceramics	1978	1999-00
Schindler Holding AG, Hergiswil	Nidwalden	machines	1986	
Rieter Holding AG, Winterthur	Zurich	machines	1987	
Forbo AG, Eglisau (1992: Forbo Holding AG, Eglisau)	Zurich	flooring products	1988	
Holzstoff Holding AG, Basel	Basel-Stadt	paper	1989	1991
Biber Holding AG, Biberist	Solothurn	paper	1991	1995
Ascom Holding AG, Bern	Bern	telecommunication	1992	
Georg Fischer AG, Schaffhausen	Schaffhausen	machines	1994	
Von Roll Holding AG, Gerlafingen	Solothurn	metal	1995	2003/04
Bobst SA, Lausanne (2001-02: Bobst Group SA, Lausanne)	Vaud	electrotechnical machinery	1996	
SAirGroup Holding, Zürich	Zurich	transports	1996	2001-02
SIG Schweizerische Industrie-Gesellschaft Holding AG, Neuhausen am Rheinfall	Schaffhausen	machines	1997	
Bucher Holding AG, Niederweningen (1999-00: Bucher Industries AG, Niederweningen)	Zurich	machines	1998	

Danzas Holding AG, Basel	Basel-Stadt	transports	1998	2003-04
SGS Société Générale de Surveillance Holding SA, Genf	Geneva	business services	1998	
Swisscom AG, Bern	Bern	telecommunication	1998	
Panalpina Welttransport (Holding) AG, Basel	Basel-Stadt	transports	1999-00	
Reuters International Holdings Sàrl, Collonge-Bellerive	Geneva	information services	1999-00	2000-01
Watt AG, Zürich	Zurich	electricity	1999-00	
Givaudan SA, Vernier	Geneva	chemicals	2000-01	
adval tech Holding AG, Niederwangen	Bern	metals and plastics	2002-03	
Cofra Holding AG, Zug	Zug	retail trade	2002-03	
AFG Arbonia-Forster-Holding AG, Arbon	Thurgau	building material	2002-03	
Axpo Holding AG, Baden	Aargau	electricity	2002-03	
Energiedienst Holding AG, Laufenburg	Aargau	electricity	2003-04	
Valora Holding AG, Bern	Bern	retail trade	2003-04	
RUAG Holding, Bern	Bern	technology	2004-05	
ALSTOM (Schweiz) AG, Baden	Aargau	energy, services	2004-05	
KABA Holding AG, Rümlang	Zurich	security technology	2004-05	
Geberit International AG, Jona	Zurich	sanitary installations	2005-06	
Quadrant AG, Zürich	Zurich	intermediary material	2005-06	
*Philip Morris International Management SA, Lausanne	Vaud	tobacco	2005-06	