From the Industrial District to the Global Firm: Swatch Group and the Swiss Watch Industry, 1960-2010

● Pierre-Yves Donzé
Osaka University

Introduction

Since Charles Sabel and Jonathan Zeitlin have argued that there were "historical alternatives to mass production" in a paper which has remained famous,[1] historical studies on industrial districts have proliferated, also drawing on the work of Giacomo Beccatini, who updated the concept of the Marshallian industrial district and applied it to the so-called Third Italy.[2] Despite the different labels and observations,[3] many historians showed in the 1980s and the 1990s that big business and multinational enterprises (MNEs) were not the only way to be competitive on the world market. Yet this traditional conception of the industrial district has been challenged recently by some business historians, who have highlighted the importance of the presence of large firms within the district as a source of competitiveness. The influence of Michael Porter must be stressed, as he argued that the size of enterprises gathered together within clusters does not matter and that some geographical agglomerations are composed of a small number of large firms.[4] Even in some industries usually taken as classical examples of industrial districts whose small and medium-sized enterprises (SMEs) are competitive on the world market due to their geographical concentration and external economies of scale, the presence of large firms appears to be a key issue for remaining competitive since the 1980s. In her study on the different types of industrial districts, Markusen identifies

1. Sabel and Zeitlin (1985) and Piore and Sabel (1984).
2. Beccatini (1979).
3. Daumas (2007).
4. Porter (1980).

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one form, described as a "hub-and-spoke district, where regional structure revolves around one or several major corporations in one or few industries".[5] The main distinguishing features of such districts are the presence of a network of small firms, like in the traditional view of the district, and of big enterprises with strong connections to companies both inside and outside the district. These large enterprises play a key role for the dynamics of the district, especially as an export driver. Other works have emphasized the influence of leading firms on knowledge diffusion within the district[6] and on access to global supply chains, Campagnolo and Camuffo speaking in the latter case of "global district firms".[7] This feature has been detailed, for example, in the case of the fashion industry in Spain, whose development since the 1990s has been underpinned by leading firms organized internationally. As Catalan and Ramon-Muñoz see it, the competitiveness of this industry relies heavily on "the organizational capabilities created by certain leading firms".[8] The importance of big enterprises in fashion districts can also be observed in Italy, where several works emphasize the major role of "pocket multinationals".[9] Accordingly, the opposition between industrial districts and large firms must be overcome in order to arrive at a better understanding of sources of corporate competitiveness and the role of geographical localization.

However, the very process of the emergence and growth of leading firms in the districts, as well as the nature of their relations with other firms in the district, remain open questions.[10] More case studies in a business history perspective are needed to shed light on these issues. The present paper therefore aims to contribute to this discussion while analyzing the conditions in which leading firms emerged in the second half of the 20th century from an industrial district originally composed of SMEs, through the example of the Swiss watch industry. It argues that the successful comeback of Swiss watch companies on the world market at the end of the 1980s can be traced to a sea change in the industrial district and to the presence of a single competitive MNE, namely Swatch Group. The paper is broken down into three parts. First, it shows how the Swiss watch industry could be viewed as an industrial district until the 1960s. Next, the organizational change in the structure of this industry between 1960 and 1990 is analyzed in relation to the liberalization policy adopted at that time. Finally, the paper focuses on Swatch Group, currently the biggest watch company in the world, explaining how this firm became a MNE and its relationships with the district.

5. Markusen (1996), p. 296.
6. Ciapetti (2011).
7. Campagnolo and Camuffo (2011).
8. Catalan and Ramon-Muñoz (2013), p. 353.
9. Colli (2002).
10. As already mentioned by Fridenson (2007), pp. 437-438.

The Swiss watch industry as an industrial district protected by the State

The Swiss watch industry has often been quoted as a typical example of an industrial district by historians of industrialization.[11] Since the 18th century, the organization of the production system under the form of établissage, close to *putting-out system* or to *Verlagsystem*, enabled the manufacture of cheap watches varying in terms of design, function and price, allowing Swiss watchmakers to meet all sorts of customer needs. In addition, the partial mechanization of production in the late 19th century strengthened the price competitiveness of Swiss watches but did not lead to broad industrial concentration. The purpose of mechanization was to systematize production rather than achieve product standardization, as can also be seen in other industrial districts.[12] One of the key aspects of the industrial district organizational form was flexibility regarding products. Many specialized manufacturers, sourcing parts from hundreds of subcontractors, were able to design an endlessly wide range of watches. In 1912, the 190-member *Société des fabricants d'horlogerie de La Chaux-de-Fonds* (Association of Watchmakers of La Chaux-de-Fonds) published a pamphlet in which it expressed its motto: "To answer the needs of all countries, all demands, all tastes and all purses."[13]

At the beginning of the 20th century, the Swiss watch industry was still organized as an industrial district. According to an official census, in 1901, the watch and jewelry sector consisted of 663 enterprises considered as "factories",[14] employing 24,858 workers, that is, an average of 37.5 per firm.[15] These companies were legally independent but economically interconnected through intense vertical division of the production process and a dense network of subcontractors. Most of these enterprises were created via spin-offs or by workers launching their own business.[16] The diffusion of a shared technical culture was made possible through associations encouraging joint research and several watchmaking schools which trained technical staff for the watch companies. These institutions embodied what Pasquier calls an "industrial atmosphere" typical of Marshallian districts.[17] In addition, that same year, there were also more than 28,000 home workers in the industry.[18] Final-

11. Veyrassat (1997) and Donzé (2011a).
12. Scranton (1997), p. 99.
13. Bubloz (1912), p. 12.
14. According to the federal law on factories, *factories* were defined in 1891 as "organizations of more than five workers, using mechanical motors or employing persons younger than 18 years old or presenting some danger to workers' health or life; all the organizations employing more than 10 workers, even if none of the above conditions are fulfilled." Quoted by Koller (2003), p. 177.
15. *Feuille fédérale*, 1931, p. 193.
16. Linder (2008).
17. Pasquier (2008), p. 422.
18. Koller (2003), p. 183.

ly, one must mention the virtual absence of big enterprises. In 1905, only seven companies employed more than 500 workers, of which only one employed more than 1,000.[19] Thus, the few watchmakers included in this top seven ranking accounted for only a very low proportion of overall national output of watches. For example, Longines, the second-largest watch firm in 1905 with 853 workers, had an estimated production of 130,000 watches that year, a volume which represented only 1.4% of Swiss watch exports.[20]

Yet the Swiss watch industry faced a major challenge in the first third of the 20th century, that of the practice of so-called *chablonnage*, which constituted of exporting parts and unassembled movement sets, then assembling and finishing watches in the countries where they were going to be sold.[21] This practice, supported by a desire to circumvent high custom duties, developed on a large scale after World War I, especially in relation to Germany, Japan and the United States. It led to angry reactions in Switzerland. To counter the relocation of production abroad and to maintain an industrial structure made up of numerous SMEs, entrepreneurs grouped together in various associations and signed a system of conventions strictly regulating *chablonnage* and trade in watch parts (1928).[22] Subsequently, the federal State recognized and legalized this system in 1934.[23] The restrictions on exports of parts and the obligation to supply parts only from Swiss subcontractors resulted in a virtual absence of foreign direct investment by Swiss watchmakers until the 1960s, apart from a few sales subsidiaries.

This so-called *Statut horloger* system included some measures aiming at strictly controlling the industrial structure of this business in order to ensure the existence of SMEs. For the Swiss government and social elite, there was the political goal of maintaining small firms all over the Jura region rather than concentrating production and workers in a few cities. The fear of Communism and of the rise of a trade union making demands were omnipresent in the watchmaking policy of the federal authorities. Addressing the Federal Assembly in 1950, the government expressed its view, arguing that watchmaking "includes numerous artisanal-like small enterprises; their owners belong to the middle class, and are thus necessary for the social and political balance of the country. These small firms spread out in villages and towns and give many people an opportunity to earn a living without having to leave their locality. At the same time, they ensure an appreciable tax base for the community. […] It is important to afford the same protection to small and medium-sized enterprises as to large ones and to maintain the decentralization of

19. Fallet-Scheurer (1912), p. 314.
20. Henry Bédat (1992).
21. Koller (2003), pp. 415-460.
22. On the cartelization process of the Swiss watch industry, see Boillat (2013).
23. Donzé (2011a), pp. 94-97.

TABLE 1 ▪ *Licenses requested and granted by the Department of Public Economy, 1937-1959*

	Requested	Granted	Granted as a %
Opening of a new company	4,464	1,160	25.9
Enlargement of an existing company	1,965	1,722	87.6
Shift to a new activity	1,373	541	39.4
Total	7,802	3,423	43.9

Source: *Feuille fédérale*, 1951, pp. 116-117 and *Feuille fédérale*, 1960, pp. 1512-1513.

watchmaking, which may be easier to achieve than in other industries".[24] Indeed, the control of prices and the virtual absence of competition between subcontractors ensured the viability of many workshops. This was a characteristic of the watch industry, as other economic sectors in Switzerland like textiles, chemicals or electrical appliances were more concentrated and included big enterprises already organized internationally since the late 19th century.[25]

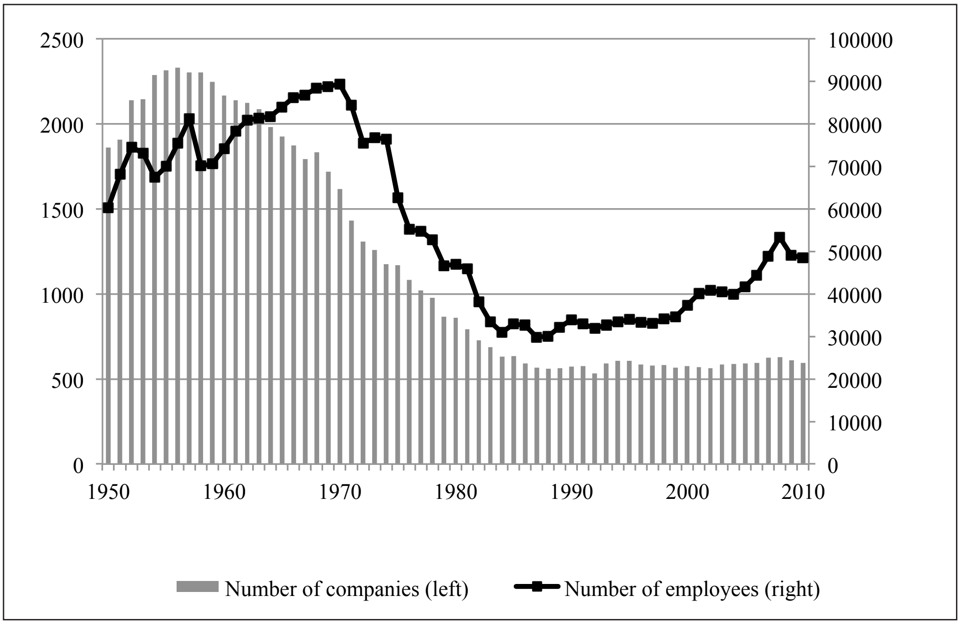
Consequently, from 1934 onwards, all activities of watch companies were subject to authorization by the Federal Department of Public Economy. Opening, enlargement, geographical movement or change in the corporate legal status of firms required an official license. The same applied to increases in the workforce, as each enterprise was subjected to a quota of workers. Finally, changing industrial activities also necessitated an official license. For example, a silver watch case maker needed a license to switch to metal or gold cases. This stringent control of company activities enabled the State and watchmaking leaders to shape developments in the means of production.

The application of this policy reflects a clear desire to maintain existing structures. While the industry was in a high-growth trend, characterized by an increase in exports from 15.2 million pieces in 1935 to 24.2 million in 1950 and 40.9 million in 1960, the State tried to limit, as much as possible, the dispersion of industrial activities during the years 1937-1959 (see Table 1). It was reluctant to allow the opening of new companies (25.9% of requests granted) and restricted shifts to new activities (39.4%). However, the enlargement of existing firms was usually approved (87.6%). The same held true for geographical movements of firms (92.6% of requests granted in the years 1937-1950).[26]

This policy, which favored SMEs and the consolidation of the industrial district, explains the absence of concentration in this sector until the 1960s. A steady increase in the number of companies can be seen, despite the political objective of limiting their number, with 858 enterprises in 1911 and 1,134

24. *Feuille fédérale*, 1950, p. 106.
25. Halbeisen, Müller & Veyrassat (2012).
26. *Feuille fédérale*, 1951, pp. 116-117. Unknown data for the years 1951-1959.

FIGURE 1 ▪ *Number of companies and of employees in the Swiss watch industry, 1950-2010*



Source: Recensement 2011, La Chaux-de-Fonds: Convention patronale de l'industrie horlogère suisse, 2011.

in 1929,[27] then 1,863 in 1949 and more than 2,000 in 1953-1963 (see figure 1). Yet the average number of workers did not show any noticeable change: it amounted to 40.8 employees by firm in 1911 and 42.7 in 1929,[28] then fell to 32.2 on average in 1949-1960, only reaching the 40 mark once again in 1964, when the liberalization of the *Statut horloger* led to a first phase of concentration (see infra).

Finally, the position of big companies within this system must be highlighted. They were indeed very much in a minority until the 1960s. In fact, the authorities allowed only two groups. First, there was the *Société suisse pour l'industrie horlogère S.A.* (SSIH), a watch company founded in 1930 through the merger of two manufactures (Omega and Tissot), which went on to become the biggest watch company in Switzerland. Second, the *Allgemeine Schweizerische Uhrenindustrie A.G.* (ASUAG) was a holding company created in 1931 with the support of the banks and the federal government, which took over nearly all makers of key watch movement components (movement blanks, assortments, balance springs) in order to control their trade and ex-

27. *Feuille fédérale*, 1931, p. 193.
28. *Feuille fédérale*, 1931, p. 193.

TABLE 2 ▪ *Omega and Longines within the Swiss watch industry, 1911-1970*

	1911	1929	1950	1960	1970
Employees, all industry	34,983	48,378	60,239	74,216	89,448
Omega, %	2.3	2.0	1.9	2.2	3.4
Longines, %	3.3	2.3	1.4	1.2	1.2
Export, number of watches, all industry, in millions	12.1	20.8	24.2	41.0	71.4
Omega, %	1.7	1.5	1.8	1.5	2.4
Longines, %	1.4	0.8	1.0	0.7	0.6

Source: Pasquier (2008), pp. 438-441; *Feuille fédérale*, Berne, 1931, p. 193; *Statistique du commerce de la Suisse avec l'étranger*, Berne: Département fédéral des Douanes, 1911-1970. The data regarding Omega does not include Tissot and are based on an approximation for production in 1911 and employees in 1929.

port. However, this huge conglomerate of firms was not rationalized and work was not concentrated.

The position of the two biggest watch manufacturers, Omega and Longines, within the Swiss watch industry at the time clearly reflects the lack of concentration (see table 2). Omega had a production level amounting to less than 2% of overall national production up until the 1960s, and employed some 2% of the industry workforce at the time. As for Longines, it had a weaker position within the industry, as its share of employment dropped from 3.3% in 1911 to 1.2% in 1960, while that of production was 1.4% in 1911 and only 0.7% in 1960.

Thus, even if the Swiss watch industry is usually considered as a classical example of an industrial district in 20th-century Europe, one must not forget that its maintenance resulted from a political will to keep both this organizational structure made up of SMEs and its territorial roots in Switzerland. This is rather an exception in Swiss economic history, as other industrial sectors like machines, chemicals or foodstuffs are characterized by early globalization.[29]

Liberalization and the change in industrial structure

After 1945, despite the high growth of its watch exports, Switzerland faced new competitors and did not see its share of the world market increase. Rather, in the 1960s it experienced stagnation with around 40-45% of the total market (see Table 3). The post-war boom favored the development of ri-

29. Bergier (1983).

TABLE 3 ▪ *World watch and movement production, 1950-1970*

	1950	1955	1960	1965	1970
Total (1,000 pieces)	47,723	73,557	99,385	122,800	176,746
Switzerland, %	52.4	47.2	42.5	44.6	41.6
USA, %	20.5	11.5	9.6	11.0	11.0
Japan, %	1.5	3.0	7.2	11.1	13.5
USSR, %	4.5	11.9	16.6	13.0	12.4
France, %	6.7	5.0	5.3	5.3	6.2
Germany, %	7.3	9.5	8.2	5.9	4.6
Others, %	7.1	11.9	10.6	9.1	10.6

Source: Landes (1983), p. 386.

val nations, such as Japan (13.5% of the world market in 1970), the USSR (12.4%) and the United States (11.0%). These nations became competitive thanks to the implementation of mass production systems, for cheap (USA) and high-quality (Japan) mechanical watches. The need to streamline production in Switzerland then to liberalize the watch industry became a key political issue in Switzerland in the early 1950s.

Liberalization and the end of the legal protection of the State

The policy of maintaining an industrial district made up of hundreds of independent small and medium-sized firms was severely criticized in the 1950s. Indeed, owing to an increasingly competitive world market, it became necessary to adopt a new production system (standardization of products, mass production and assembly-line work) hitherto largely unknown in the Swiss watch industry and to expand manufacturing internally, neither of which would have been possible within the decentralized and atomized structure of the industry.[30] In order to boost the ability of the Swiss watch industry to compete with Japanese and American companies which streamlined their production system after WWII,[31] the concentration of enterprises and the delocalization of some low-value production activities necessitated the liberalization of the watch industry.

The main promoters of decartelization were indeed complete watchmakers. Present on the world market, they faced foreign challengers and argued that their industry required liberalization to allow the modernization of means of production. Those most reluctant were the producers of parts and move-

30. *Feuille fédérale*, 1970, pp. 722-723.
31. For the example of Japan, see Donzé (2011b).

ments. ASUAG was particularly virulent in its open criticism of proposals to abandon production licenses and control over the export of parts and movement blanks. As for the other subcontractors, their attachment to the cartel-like agreement can be explained by the lack of international competitiveness of these sectors. In particular, the watch case and dial makers defended the principle of compulsory prices and a ban on the supply of parts mass-produced abroad.

In the end, liberalization won over a growing number of supporters, as part of an overall trend towards the decartelization of the Swiss economy in the 1960s.[32] The Federal Assembly adopted a first revision of the legislation on the *Statut horloger* in 1961. Notwithstanding, liberalization went smoothly, with a transitional system between 1962 and 1965 during which controls on exports of movement parts and movement blanks remained in place. Likewise, up until 1965, the State maintained formal production controls on company start-ups and recruitment, even though such measures were loosely applied. Finally, the watch industry was fully liberalized in 1971.[33]

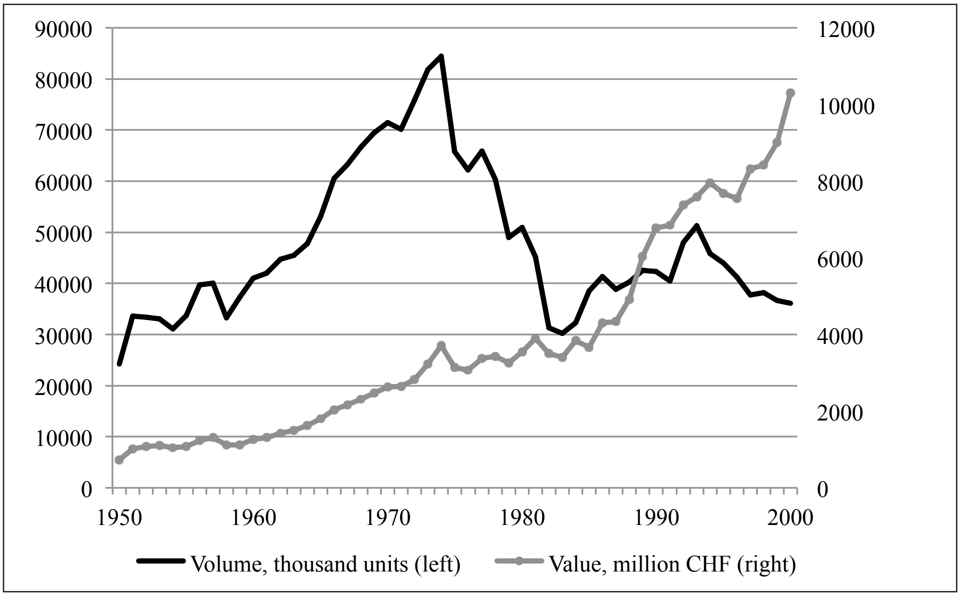
Change in the industrial structure

Before evaluating the impact of liberalization on the structure of the watch industrial district and the emergence of leading firms, it should be recalled that this industrial restructuring between 1960 and 1990 took place in a changing economic context marked by three distinct phases (see Figure 2): a high-growth period with a constant increase in the value and volume of exports (until 1974); crisis and recession, characterized by a stagnation in value and a drop in the volume of exports (1975-1984); and a phase of comeback and new growth since 1985, characterized however by a decrease in volume since 1994 due to the repositioning towards luxury. Consequently, industrial restructuring has occurred in a varying environment, which is why concentration has usually been (wrongfully) perceived as a mere consequence of crisis.[34]

Statistics concerning all companies in the watch industry (watch manufacturers, parts makers, sale companies) accurately highlight the gap between concentration and crisis (see Figure 2). The number of companies, which peaked at more than 2,300 at the end of the 1950s, shows a constant decrease between 1960 (2,167 companies) and 1985 (634). Employment continued to grow until 1970, with a high point of some 90,000 workers that year, reflecting a general trend towards industrial concentration: the average number of employees by firm went from 34.2 persons in 1960 to 64.9 in 1974. During the

32. Schröter (2005).
33. *Feuille fédérale*, 1984, p. 848.
34. Donzé (2011a), pp. 123-128.

FIGURE 2 ▪ *Swiss export of watches, volume and value, 1960-2000*



Source: Statistique du commerce extérieur de la Suisse, Berne: Administration fédérale des Douanes, 1950-2000.

years 1975-1984, recession led to a drop in employment and a trend towards deconcentration (49 employees by firm in 1984).

This general data clearly emphasizes the tendency towards industrial concentration since 1960. However, the variety of firms covered is too broad to zero in on the emergence of big firms. The membership lists of the Federation of the Swiss Watch Industry, an association for only watchmakers (assembly makers and manufacturers), constitute an excellent source for understanding in detail the structural evolution of the industrial district (see Figure 3). The decrease in the overall number of watchmakers, which dropped from 537 in 1960 to 163 in 1990, is a clear sign of concentration. However, it occurred as part of a complex dynamic, the main features of which are as follows.

First, not only did existing firms close down, but new ones opened. In this context, the very low survival rate for companies created until 1960 must be highlighted: of the 537 companies in existence in 1960, there were only 186 left in 1980 and 99 in 1990. During these three decades, more than 81% of these companies disappeared and nearly 40% of the companies existing in 1990 were opened after 1960. Thus, the overwhelming majority of companies founded under the *Statut horloger* regime were non-competitive firms, which went out of business while the world market was expanding. In particular, there were many tiny family firms which were opposed to liberalization. Their representatives in the Swiss Federal Assembly lobbied to avoid liberalization but did not succeed. Moreover, some of them came together in the mid-1950s in a *Comité d'action et de défense des fabricants d'horlogerie* (Cadhor) to carry out lobbying.[35] But Cadhor was also powerless: of the 36 Cadhor members still around in 1960, 14 closed down in the 1960s and 16 in the 1970s.

Moreover, more than half of these uncompetitive firms consisted of so-called "manufactures", that is, firms which produced their own watch movements in-house. Officially, there were 56 "manufactures" in 1960, but only 25 were still operating in 1990. Besides, by that time, nearly all of them had stopped producing their own movements and sourced them from ASUAG (Bulova, Certina, Favre-Leuba, Marvin, Omega, Longines, Universal, Rayville-Blancpain, Tissot, Vulcain, etc.). Their production was not large enough to compete on cost, with the exception of a very few cases positioned in the luxury segment (Audemars Piguet, Jaeger LeCoultre, Patek Philippe, and Rolex).

Most of the 537 makers present in 1960 were family firms with neither the capital nor the will to enter into a merger with other companies. Accordingly, for many of these entrepreneurs, the creation of holding companies appeared as a halfway step towards rationalization, especially in terms of distribution, which allowed them to maintain their independence. Like MSR (1961), Sagiter S.A. (1965), Chronos Holding (1966), Soprod (1966), UMES (1966), Economic Swiss Time Holding (1967), Procaf (1967), SGT (1968) and Orbit (1970), numerous holding companies bringing together small firms were created in the 1960s.[36] With a very few exceptions, they ended in failure, because they did not engage in the rationalization of production.

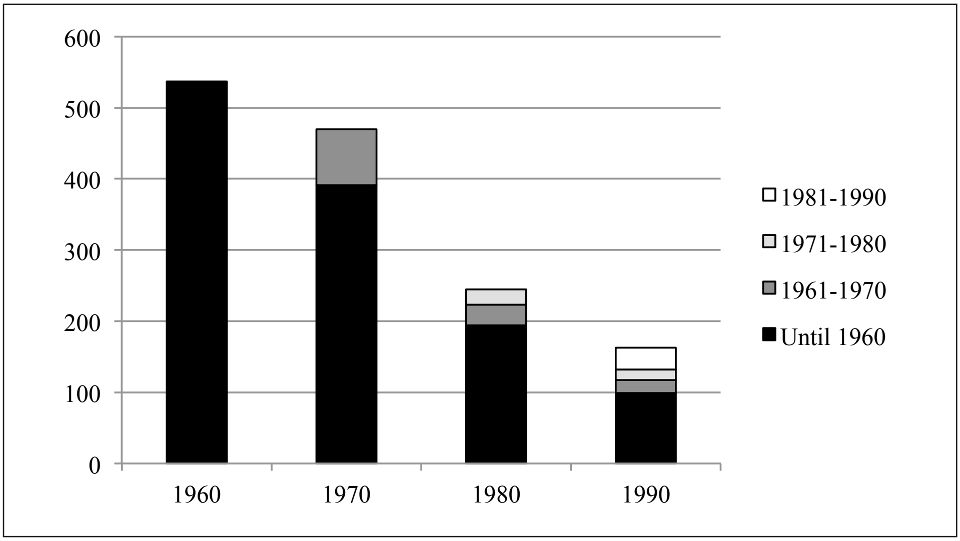
Second, the reorganization of the Swiss watch industrial district was characterized by the opening of new firms. Those opened during the 1960s were not competitive from a long-term perspective: out of the 79 new companies in 1970, only 18 remained in 1990. They were mostly producers of cheap entry-level mechanical watches (*pin-lever* or *roskopf watches*), unable to compete with quartz watches in the 1980s. On the other hand, firms created in the 1970s and 1980s were more long-standing and characterized by a new business model. Often products of the watch industry, they had no ambition to produce watches and to master production technologies; rather, they were assembly-makers that sourced movements from ASUAG and were geared to marketing, fashion and brand image. Some representative examples are Roberge Watch (1972), Raymond Weil (1976), Montres Hermès (1978), Bertolucci S.A. (1987) and Bulgari Time (1987).

At the same time, the trust controlling parts production, ASUAG, adopted a new strategy for growth. It acquired several watchmakers, including the man-

35. In this respect, see *Commission d'étude FH – Cadhor. Rapport au Département fédéral de l'Economie publique*, 1957, 104 p.

36. *Journal de Genève*, 18 January 1967, Richon (1998) and Donzé (2011a), p. 131.

FIGURE 3 ▪ *Swiss watchmaking companies, by period of foundation, 1960-1990*



Source: Federation of the Swiss Watch Industry, membership lists; Richon Marco, *Omega Saga*, Bienne: 1998.

ufacture Longines, and created its own watch division (General Watch Co. – GWC) in 1971. In 1978, ASUAG and its various companies employed more than 13,000 persons in Switzerland, that is, 24.8% of employment in this sector.[37] Like other holding companies, however, ASUAG was not really an integrated firm but rather a conglomerate of firms with a largely autonomous management, so it is difficult to consider it as a leading firm in the early 1980s.

In any event, the sea change that occurred in the Swiss watch industry between 1960 and 1990 had two main characteristics: the concentration of movement production in a very few companies, with the failure of most of independent manufactures and the growth of ASUAG; and the success of fashion watches. The first multinational enterprise in the Swiss watch industry emerged in 1983 on this twofold basis: Swatch Group.

A Swiss multinational enterprise in the watch industry: Swatch Group

Swatch Group (SG) was founded in 1983 on the advice of the consultant Nicolas G. Hayek, who proposed merging the two biggest watch groups (ASUAG and SSIH) as a way out of the crisis.[38] This new enterprise immediately established itself as a leading firm in the Swiss watch industry, a posi-

37. ASUAG, Annual report, 1978.
38. On Swatch Group, see Donzé (2012).

tion it has kept ever since. Even though it is the largest employer, with some 25-30% of the overall workforce in this industry in Switzerland, and accounts for around 30% of the value of watch exports between 1983 and 2010, its role as a leading firm relies on another factor. Indeed, it exercises a veritable monopoly over the production of movement blanks, through ASUAG, and due to the closure of many independent small manufactures after 1960. Thus, SG provides the entire watch industry with parts and movements – a role which made it an industrial and technological leader in the industry, as other enterprises are mainly assembly-makers and marketers, apart from a few manufactures (Rolex, Patek Philippe, Audemars Piguet, Jaeger LeCoultre).

The restructuring of Swatch Group

Hayek adopted a restructuring policy in the mid-1980s, aiming at both rationalizing the production system and implementing a new marketing strategy. At first, in terms of production, radical restructuring was introduced, leading to a concentration of production in Switzerland, accompanied by plant closures and the transfer of workers, as well as to the relocation of some production activities in Asia. Thus, SG opened subsidiaries in Thailand (1986), Malaysia (1991) and China (1996) successively, making it one of the world's leading producers of watch movements. In 2004, the Group had a production capacity of nearly 130 million movements, of which some 100 million were manufactured in Asia.[39]

Yet full transfer abroad of production, as can be seen in some Western textile companies,[40] was not possible in the watch industry due to the "Swiss Made" legislation.[41] Use of this designation of origin by Swiss watch companies, which gave their products an important comparative advantage on the global market, was indeed strictly protected by a governmental decree adopted in 1971. It was considered as a measure to limit the liberalization of the watch industry, with the twofold aim of preventing massive relocation in Asia and ensuring a high level of quality for so-called Swiss watches. This decree stipulates notably that to qualify for the use of the "Swiss Made" label, the manufacture of at least 50% of the movement's parts (value), the assembly of the watch and the final control must all take place in Switzerland (Art. 1 and 2). At the time, this was a very pragmatic measure that made it possible to relocate part of production, especially low value-added operations, with a view to boosting the competitiveness of the Swiss watch industry in terms of production costs.

39. Own estimates on the basis of Swatch Group's annual reports.
40. Jane and Probert (2009).
41. *Ordonnance réglant l'utilisation du nom "Suisse" pour les montres*, 23 December 1971.

In this way, Swatch Group not only became a leading firm in Switzerland but also transitioned to a multinational enterprise (MNE), and this globalization is a key part of its success. Staffing trends at SG perfectly illustrate this globalization of production systems. The share of employees in Switzerland, which was 80% in 1983-1985, dropped to 71% in 1990 and to 54% in 1998, a proportion which has remained stable ever since. This internationalization primarily relies on the development of the Asian plants. Indeed, the share of employees in Asia, glossed over in the 1980s, amounted to 21% in 1992 and to 33% in 1998. The Thai subsidiary, ETA (Thailand) Co. Ltd., employed some 3,000 persons in 1994, that is, some 18% of the Group's entire workforce.

As for the new marketing strategy, it was based on better positioning of brands, the globalization of their image, and a move by some of them, such as Omega, into the highly profitable luxury goods segment. This shift towards luxury was a tendency for the industry as a whole, as highlighted by the drop in the volume of exports together with a steady growth in value since the mid-1990s (see Table 4). Yet another feature of this evolution is the comeback of mechanical watches, whose share between 2000 and 2010 went from 9.7% to 19.2% in terms of volume and from 47.5% to 71.9% in terms of export value. This change was not limited to SG, but it was one of the major actors in this process.

Besides, whereas SG was still largely a producer of watch movements in its early years (72.2% of production volume in 1985), which it provided for other Swiss and foreign watch assembly-makers, it turned into a producer and

TABLE 4 ▪ *Swiss exports of watches (finished watches and movements), 1980-2000*

	1980	1985	1990	1995	2000	2005	2010
Volume, millions of pieces	**47.1**	**37.4**	**41.6**	**43.7**	**35.9**	**29.9**	**31.9**
mechanical, %	79.3	19.3	9.5	13.0	9.7	14.2	19.2
quartz, %	20.7	80.7	90.5	87.0	90.3	85.8	80.8
Value, CHF millions	**2,790.1**	**3,595.8**	**5,936.2**	**6,793.5**	**9,402.5**	**11,560.7**	**15,343.0**
mechanical, %	68.4	43.4	41.5	47.3	47.5	62.2	71.9
quartz, %	31.6	56.6	58.5	52.7	52.5	37.8	28.1
Average value, mechanical watch (A)	51.0	216.0	623.5	567.4	1,285.9	1,694.6	1,805.5
Average value, quartz watch (B)	90.3	67.5	92.2	94.2	152.2	170.6	167.3
A / B	0.6	3.2	6.8	6.0	8.4	9.9	10.8

Source: Federation of the Swiss watch industry.

marketer of complete watches, as the share of parts out of gross sales (including movements) fell from 28% in 2000 to 20.3% in 2010 (of which only 7.6% for enterprises outside the Group).[42] Since the 1990s, SG's competitors are no longer Japanese watchmakers but rather other Swiss and European watch groups that have adopted a similar marketing strategy but lack production facilities (Richemont Financial Group, LVMH).

Consequences for SG

As can be seen above, the 1990s were a crucial decade for Swatch Group. The repositioning into luxury watches, with the acquisition of firms and the rebranding of Omega, had a deep impact on SG's management. Despite the lack of published annual reports, an analysis of the main figures makes it possible to identify two different phases.

The first period, marked by the restructuring of the production system, reveals a positive impact in terms of profitability. Between 1985 and 1995, the growth of gross sales was limited (39.1%) but profits were very high. The balance sheet went from 1.5 billion francs to 3.4 billion francs in ten years and was accompanied by a dramatic increase in shareholder equity, which amounted to more than 70% in 1995. At the time, rationalization enabled SG to self-finance its expansion, notably in Thailand. The opening of production units in Asia led to very high growth in respect of the production of watches and movements (43.4 million units in 1985 and 101.4 million in 1995). As Switzerland exported only 43.9 million units in 1995,[43] this means that SG's Asian production can be evaluated at about 65 million units, a factor which explains the rise of Asia as an outlet during this period.

This expansionist policy was pursued during the second period, when the move into luxury took place. Opening a plant in China made it possible to boost production volume by some 10% between 1995 and 2000. However, the repositioning into luxury had a stronger effect. The purchase of four luxury watchmakers in 1999-2000 had virtually no impact on the composition of the Group's assets. Since 2000, shareholder equity only dipped under the 70% line once and passed 80% for the first time in 2010. This excellent financial situation can be explained by the steady growth in gross sales, which went from CHF 2.6 to 6.4 billion between 1995 and 2010, and also by profits, which skyrocketed since the late 1990s, peaking at 23.5% of gross sales in 2010. Yet even if SG does not communicate data related to the volume of the sales since 2004, the share of watches (61.8% in 2000 and 73.7% in 2010) reveals the main

42. Swatch Group, Annual reports, 2000-2010.
43. *Statistique du commerce extérieur de la Suisse*, Berne: Administration fédérale des Douanes, 1995.

TABLE 5 ▪ *SG management, millions CHF and %, 1985-2010*

	1985	1990	1995	2000	2005	2010
Assets, millions CHF	**1,526**	**1,924**	**3,351**	**4,662**	**6,588**	**8,614**
Shareholders' equity, %	32.1	54.6	70.1	71.2	69.9	82.4
Gross sales, millions CHF	**1,896**	**2,139**	**2,637**	**4,263**	**4,497**	**6,440**
Watches, %	85.6	78.5	82.8	61.8	64.9	73.7
Movement blanks, parts, %				28.0	24.6	20.5
Gross sales, Asia, %	21	21	29	29	37	51
Operating profits, as a % of net sales	3.3	10.6	10.6	16.5	17.1	23.5
Gross sales, millions, watches and movements	**43.4**	**57.9**	**101.4**	**112.3**	**NA**	**NA**

Source: Swatch Group, Annual reports, 1985-2010

source of these increasing profits: the Group now relies on sales of complete watches rather than the sale of movements and parts.

In this way, the restructuring policy adopted in the 1980s and the 1990s allowed SG to establish itself as a leading firm within the watch industrial district while shifting towards a globalized firm. In 2010, it was considered the world's largest watch company, with a market share of 17.4%.[44] Moreover, SG owns five out of ten leading watch brands in terms of gross sales (Omega, Breguet, Swatch, Tissot, and Longines), while its rivals had each only one.[45] Within this context, the exact nature of the dialectical relationship between this firm and the Swiss watch industrial district must still be examined.

The relations between SG and the Swiss watch industrial district

There are two ways to view the relationship between SG and the watch industrial district. First, one can examine the benefits for a globalized firm like SG of being inserted within such a district. Second, the nature of the benefits conferred by the presence of a leading firm on the other enterprises of the district must be discussed.

As far as SG is concerned, being inside the watch industrial district enables it to take advantage of two kinds of resources. The first is access to traditional know-how related to mechanical watchmaking. This technological resource, based on relations with legally independent subcontractors and on the employment of qualified workers, trained in the various watchmaking

44. *Watch industry*, Vontobel Equity Research, 2011.
45. *Watch industry*, Vontobel Equity Research, 2011.

schools of the country, is often highlighted by scholars as one of the main reasons for the successful comeback by SG and the Swiss watch industry as a whole on the world market.[46] However, know-how is not naturally rooted in a territory, as the historiography generally illustrates. It is maintained and supported by social institutions such as the "Swiss Made" legislation, which make it necessary to continuously invest in training in Switzerland.

Moreover, the importance of the strategy of merging subcontractors and parts suppliers implemented in the mid-1980s must be underscored. The overall number of SG production subsidiaries in Switzerland (excluding watch assembly-makers) went from 7 in 1985 to 15 in 2010.[47] Consequently, there is a strong tendency to internalize technical skills, in which case SG controls all of the operations required to produce complete watches. Yet despite verticalization, the managers and engineers of formerly independent subcontractors still rule their companies, even if they lost ownership and control. In addition, SG has invested since 2000 in the opening of new plants all over the Jura region, especially to access local skilled labor, so that the relationship between SG and the former district has not completely disappeared.

The second kind of resources available to SG thanks to its presence in Switzerland are marketing resources. They have become a key issue on the world market. The shift of watches into luxury goods has been accompanied by a reinforcement of their image as traditional, locally rooted products. Even though mechanical watches amount to only some 20% of the volume of exports, the communication policy of SG – as well as that of its competitors – is based on a discourse highlighting tradition, brand heritage and know-how. Accordingly, there are very rational reasons to keep production and facilities in Switzerland, which can explain why SG has pushed hard since 2007 for a strengthening of specifications for the use of "Swiss Made" label.[48] Swiss scholars in the fields of regional economics and anthropology shed light on the process of how both SG and other large groups have leveraged their presence in the Jura region as a marketing resource. In particular, Kebir and Crevoisier clearly showed how the return of mechanical watchmaking in the 1990s was based on the use of such cultural resources as "historical legacy, technique and aesthetics."[49] This process of building a cultural heritage also figures prominently in the work of the ethnologist Hervé Munz.[50]

It is more difficult to find evidence as to the benefits which the industrial district itself derives from the presence of a leading firm. Ever since the 1930s, Asuag traditionally played a major role as a provider of parts and movement

46. See for example Pasquier (2008).
47. Swatch Group, Annual reports, 1985-2010.
48. "Swiss Made : la botte secrète de Swatch Group", *Bilan*, 24 April 2007.
49. Kebir and Crevoisier (2008), p. 1198.
50. Munz (2013).

blanks, a role taken over by SG in the 1980s and the 1990s. This in turn guaranteed the flexible and specialized character of the Swiss watch industrial district, as many small independent assembly-makers were able to emerge and grow. However, SG's shift to a producer of complete watches and the creation of other concentrated luxury groups (Richemont, LVMH) led the Group to rethink its policy in 2002 and to decide to gradually stop supplying parts and movements to rival firms. Despite an investigation by the Federal Competition Commission (Comco), to date, SG has continued with its policy of progressively phasing out the sale of movements and parts to companies outside the Group.[51]

As a result, relations between SG and other watch companies in the Jura region are now driven more by competition than by cooperation, which means that we must discuss the real benefits of the district. This paper argues that the major organizational change which occurred in this industry shifted the basis of competitive advantage away from the district itself to the MNE. Due to verticalization and a halt to the practice of supplying parts outside of SG, the Swiss watch industry seems different from cases like the Spanish fashion industry, where there are direct benefits of the presence of MNEs for small firms, notably through subcontracting.[52] However, this is an exclusively production-based view. If one were to look at marketing facilities, which have been a driving force of the growth of the Swiss watch industry since the 1990s, the merits of SG's presence for other companies are nowhere to be seen.

The various watch companies belonging to SG, such as Omega, become true hubs for training managers, who go on to pursue their career in other companies, bringing with them new experiences and practices. Michele Sofisti is an excellent case in point.[53] Born in 1957, this Italian citizen studied at the University of Parma and was hired by Ferrari in 1988 to head its marketing department, where he served first as director of the German subsidiary (1990), then as director for Italy (1994). He was subsequently poached in 1995 by SG for Omega's marketing department, which was working to reposition the brand in the luxury segment. Even though he became CEO of Omega in 1997, Sofisti left SG two years later to join the rival group LVMH, where he briefly headed up Christian Dior Watches before returning to SG as CEO of the operating company Swatch (2000). Again, he left SG in 2005 and served, in particular, as managing director of the watch department of Gucci Group, controlled since 2003 by the French luxury group Pinault-Printemps-Redoute (PPR), before being appointed CEO of Sowind Group (watch brands Gi-

51. See the official website of the Competition Commission, http://www.weko.admin.ch (last access: 10 July 2013).

52. Catalan & Ramon-Muñoz (2013).

53. Richon (1998), p. 75.

rard-Perregaux and Jeanrichard) after its purchase by PPR (2011). Michele Sofisti is far from an exception in the Swiss watch industry, where careers are built on ongoing change between firms and groups. Scores of middle and top managers in marketing have followed similar career paths.[54] When seen from this angle, the presence of leading firms and MNEs like SG can be a real plus for the industrial district as far as marketing resources are concerned.

Conclusion

The case of the Swiss watch industry tackled in this paper highlights the fact that the transition from an industrial district composed of SMEs, where large firms were nearly absent, to a new kind of geographical agglomeration dominated by a single MNE was a process resulting from institutional change rather than "natural" evolution of business and economy. Until the early 1960s, the Swiss watch industry was indeed ruled by a system of conventions set up in the 1920s and legally recognized by the federal government in 1934, which was designed to retain an industrial structure without big enterprises. M&A and foreign direct investments were strictly controlled by the authorities, and usually not accepted. The traditional industrial district was maintained for social and political reasons.

The appearance of competitors in the USA and in Japan during the 1950s led to a need to liberalize the watch industry in Switzerland to enable mergers and relocation of production abroad – only partially due to the "Swiss Made" legislation adopted in 1971. This reordering of the industrial structure was long and difficult to implement but eventually led to the creation of a leading firm in 1983, Swatch Group, which organized itself as a MNE during the 1980s.

Thus, the regained competitiveness of the Swiss watch industry on the world market in the late 1980s no longer relied on the flexibility of the traditional industrial district, but rather on the presence of a globalized leading firm. This change can be explained by the deep transformation of the market at the end of the 20th century, with a major shift from a very fragmented and regionalized world market to a largely integrated global market, a trend that is particularly pronounced in the fashion and luxury goods business. Until the 1980s, the atomized nature of the world market allowed numerous small firms to find outlets for their specialized products. However, the globalization of brands and products made the organizational capabilities of MNEs the key issue for competitiveness, even if they still use their geographical location as a resource for technology and marketing.

54. Donzé (2014), pp. 93-95.

To conclude, this paper has showed that a MNE emerged from the district and internalized regional resources to establish itself as the most competitive enterprise in this industry. However, it is hard to consider it as a leading firm for the district, as some scholars have observed in other cases.[55] A more appropriate view of the Swiss watch industry is to consider the gradual collapse of the district together with the emergence of big companies such as SG. The latter still uses the region for its resources, as in clusters defined by Porter,[56] but the district itself has disappeared.

BIBLIOGRAPHY

BECCATINI, Giacomo (1979), "Dal settore industriale al distretto industriale: alcune considerazioni sull'unita' di indagine dell'economica industriale", *Rivista di economia e politica industriale*, no. 5, vol. 1, pp. 7-21.

BERGIER, Jean-François (1983), *Histoire économique de la Suisse*, Lausanne: Payot.

BOILLAT, Johann (2013), *Les véritables maîtres du temps: le cartel horloger suisse (1919-1941)*, Neuchâtel: Alphil.

BUBLOZ, Gustave (1912), *La Chaux-de-Fonds, métropole de l'industrie horlogère suisse*, La Chaux-de-Fonds: Société des fabricants d'horlogerie de La Chaux-de-Fonds.

CAMPAGNOLO, Diego & CAMUFFO, Arnaldo (2011), "Globalization and low-technology industries: the case of Italian eyewear", in Paul L. ROBERTSON & David JACOBSON (eds.), *Knowledge Transfer and Technology Diffusion*, Cheltenham/Northampton: Edward Elgar, pp. 138-161.

CATALAN, Jordi & RAMON-MUÑOZ, Ramon (2012), "Marshall in Iberia. Industrial Districts and Leading Firms in the Creation of Competitive Advantage in Fashion Products", *Enterprise & Society*, vol. 14, no. 2, pp. 327-359.

CIAPETTI, Lorenzo (2011), "Technological change, knowledge integration and adaptive processes: the mechatronic evolution of the Reggio Emilia district", in Paul L. ROBERTSON & David JACOBSON (eds.), *Knowledge Transfer and Technology Diffusion*, Cheltenham/Northampton: Edward Elgar, pp. 107-137.

COLLI, Andrea (2002), "'Pocket Multinationals': Some Reflections on 'New' Actors in Italian Industrial Capitalism," in Hubert BONIN et al. (eds.), *Transnational Companies 19th-20th Centuries*, Paris: Plage, pp. 155-178.

DAUMAS, Jean-Claude (2007), "Districts industriels : du concept à l'histoire", *Revue économique*, vol. 58, no. 1, pp. 131-152.

DONZÉ, Pierre-Yves (2011a), *History of the Swiss Watch Industry from Jacques David to Nicolas Hayek*, Bern: Peter Lang.

55. Campagnolo & Camuffo (2011) and Catalan & Ramon-Muñoz (2013).
56. Porter (1990).

DONZÉ, Pierre-Yves (2011b), "The hybrid production system and the birth of the Japanese specialized industry: Watch production at Hattori & Co. (1900-1960)", *Enterprise & Society*, vol. 12 no.2, pp. 356-397.

DONZÉ, Pierre-Yves (2012), *Histoire du Swatch Group*, Neuchâtel: Alphil-Presses universitaires suisses.

DONZÉ, Pierre-Yves (2014), *A Business History of the Swatch Group: The Rebirth of Swiss Watchmaking and the Globalization of the Luxury Industry*, Basingstoke: Macmillan.

FALLET-SCHEURER, Marius (1912), *Le travail à domicile dans l'horlogerie suisse et ses industries annexes*, Berne: Imp. de l'Union.

FRIDENSON, Patrick (2007), "Conclusion", in Jean-Claude DAUMAS, Pierre LAMARD & Laurent TISSOT (eds.), *Les territoires de l'industrie en Europe (1750-2000): Entreprises, régulations et trajectoires*, Besançon: Presses universitaires de Franche-Comté, pp. 423-440.

HALBEISEN, Patrick; MÜLLER, Margrit & VEYRASSAT, Béatrice (eds.) (2012), *Wirtschaftsgeschichte der Schweiz im 20. Jahrhundert*, Basel: Schwabe.

HENRY BÉDAT, Jacqueline (1992), *Une région, une passion: l'horlogerie. Une entreprise: Longines*, Saint-Imier: Editions des Longines.

JANE, Christel & PROBERT, Jocelyn (2009), *National capitalisms, global production networks: Fashioning the value chain in the UK, USA, and Germany*, Oxford: Oxford University Press.

KEBIR, Leila & CREVOISIER, Olivier (2008), "Cultural Resources and Regional Development: The Case of the Cultural Legacy of Watchmaking", *European Planning Studies*, vol. 16, no. 9, pp. 1189-1205.

KOLLER, Christophe (2003), *"De la lime à la machine". L'industrialisation et l'Etat au pays de l'horlogerie. Contribution à l'histoire économique et sociale d'une région suisse*, Courrendlin: Communication suisse et européenne.

LANDES, David S. (1983), *Revolution in time, clocks and the making of the modern world*, Cambridge: Harvard University Press.

LINDER, Patrick (2008), *De l'atelier à l'usine : l'horlogerie à Saint-Imier (1865-1918) : histoire d'un district industriel : organisation et technologie : un système en mutation*, Neuchâtel: Alphil.

MARKUSEN, Ann (1996), "Sticky Places in Slippery Space: A Typology of Industrial Districts", *Economic Geography*, vol. 72, no. 3, pp. 293-313.

MUNZ, Hervé (2013), "La fabrication et les usages politiques du « patrimoine horloger » dans le Pays de Neuchâtel", www.ethnographiques.org (last access: 20 July 2013).

PASQUIER, Hélène (2008), *La « recherche et développement » en horlogerie : acteurs, stratégies et choix technologiques dans l'arc jurassien suisse (1900-1970)*, Neuchâtel: Alphil.

PIORE, Michael & SABEL, Charles (1984), *The Second Industrial Divide: Possibilities of Prosperity*, New York: Cambridge University Press.

PORTER, Michael (1990), *The Competitive Advantage of Nations*, New York: Free Press.

RICHON, Marco (1988), *Omega Saga*, Bienne: Fondation pour le patrimoine Omega.

SABEL, Charles & ZEITLIN, Jonathan (1984), "Historical alternatives to mass production: Politics, markets and technology in nineteenth-century industrialization", *Past & Present*, vol. 108, pp. 133-176.

Schröter, Harm (2005), "Cartels", Dictionnaire historique de la Suisse, www.dhs.ch (site accessed: 15 June 2009).

SCRANTON, Philip (1997), *Endless Novelty. Specialty Production and American Industrialization, 1865-1925*, Princeton: Princeton University Press.

VEYRASSAT, Béatrice (1997), "Manufacturing flexibility in nineteenth-century Switzerland: social and institutional foundations of decline and revival in calico-printing and watchmaking", in Charles F. SABEL & Jonathan ZEITLIN (eds.), *World of possibilities. Flexibility and Mass Production in Western Industrialization*, New York: Cambridge University Press, pp. 188-237.

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From the Industrial District to the Global Firm: Swatch Group and the Swiss Watch Industry, 1960-2010

ABSTRACT

This paper focuses on the issue of the emergence of leading firms within industrial districts during the second half of the 20th century. Taking the example of the Swiss watch industry, it argues that institutional factors played a key role in this process. Cartel agreements, set up in the 1920s, combined with the legal backing of the federal state from 1934 onwards, maintained an industrial organization based on small and medium-sized enterprises (SMEs) and prevented the appearance of big firms. However, the liberalization policy adopted in the early 1960s sounded the death knell of the cartel and encouraged industrial restructuring through M&As. Swatch Group was founded in this context in 1983, and went on to establish itself as the largest watch business in Switzerland and in the world. The firm began relocating part of its production facilities abroad in the mid-1980s, especially in East Asia, and turned into a multinational enterprise during the 1990s.

KEYWORDS: industrial district, multinational enterprise, watch industry, Switzerland

JEL CODES: N90, O14, O33

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Del distrito industrial a la firma global: el Grupo Swatch y la industria relojera suiza, 1960-2010

RESUMEN

Este artículo se centra en la emergencia de empresas líderes en el seno de los distritos industriales durante la segunda mitad del siglo XX. Tomando el ejemplo de la industria relojera suiza, se expone que los factores institucionales desempeñaron un papel central en este proceso. Los acuerdos de cartelización, establecidos en la década de 1920, unidos con el respaldo legal del estado federal desde 1934, mantuvieron una organización industrial basada en pequeñas y medianas empresas (pymes) e impidieron la aparición de grandes empresas. Sin embargo, la política de liberalización adoptada en los primeros años de la década de 1960 supuso la sentencia de muerte del cartel y alentó la reestructuración industrial a través de fusiones y adquisiciones. El Grupo Swatch fue fundado en este contexto en 1983 y se convirtió en el mayor negocio relojero de Suiza y del mundo. La firma empezó relocalizando parte de sus medios de producción en el extranjero a mediados de la década de 1980, especialmente en Extremo Oriente y se convirtió en una multinacional durante la década de 1990.

PALABRAS CLAVE: Distrito industrial, empresa multinacional, industria relojera, Suiza

CÓDIGOS JEL: N90, O14, O33