Business Elites and Family CapitalismThe Case of the Swiss Metallurgy Industry during the 20th Century

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Abstract

The aim of this contribution is to highlight the long-term evolution of family capitalism in Switzerland during the 20th century. Using a large database on Swiss elites including the members of the 110 largest Swiss firms, this research focuses on a sample of 22 big companies of the machine, electro-technical and metallurgy (thereafter mem) sector, whose board of administration and general directors (634 persons) have been identified for five benchmarks across the 20th century (1910, 1937, 1957, 1980 and 2000). The contribution develops then around two main aims. The first one is to identify the degree of family capitalism for each company and each year, in order to highlight the evolution of this form of corporate governance during the whole century. For this purpose, we take up the distinction made by other authors between family-owned and family-controlled firms. This allows us to show the strong persistence of family capitalism in the mem sector until the 1980s, and then its relative decline at the end of the century. Second, we focus more specifically on the question of the control of the firms, with an analysis of the educational profile of the actors holding a decisive executive function in our 22 companies (195 persons). The main objective of this section is, first, to highlight the long-term evolution of their education, and, second, to determine if the educational profile of the heirs of family firms differs from the one of the "outside directors". This allows us to show that family members are in general highly qualified, their educational background being quite similar to the one of "outside directors". In other words, being an heir do not exempt them from getting a qualified training in order to accede to decisive executive functions in the family business.

Keywords: Family capitalism, Switzerland, business elites, metallurgy, corporate governance, education, 20th century.

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Introduction

The aim of this paper is to contribute to the current researches on family capitalism. As many scholars have recently shown (e.g. Colli 2003, Daumas 2003, James 2006 and Colli & Rose 2008), family capitalism, usually associated to the First Industrial Revolution, has been able, on some extent at least, to "survive" through managerial and financial capitalism that succeeded in most of the so-called developed countries. Although we can observe a large persistence of family capitalism in Switzerland in the contemporary period as well, this subject remains quite neglected among Swiss researchers. Moreover, most studies are either focusing on a case study (enterprise or family monographs), or on a single benchmark. As a consequence, we know very little about the general long-term evolution of this kind of corporate governance. The aim of this contribution is thus to fill this gap, and to include Switzerland in a comparative perspective. Its main objective is to highlight the large persistence of family capitalism in Switzerland during the 20th century, and to identify its forms and evolution. For this purpose, we focus on big companies of the Swiss machine, electro-technical and metallurgy (thereafter mem) sector, which is the historical core of the Swiss industry, and remains today the largest industrial employer and exporter of the country.1

Using a large database on Swiss elites including more than 12,000 persons holding decision-making positions in the economic, political, administrative and social worlds,² this research focuses on a sample of 22 big companies of the mem sector,³ whose board of administration and general directors (634 persons) have been identified for five benchmarks across the 20th century (1910, 1937, 1957, 1980 and 2000). These firms have been selected among the 110 biggest Swiss companies listed by the database mentioned above,⁴ according to the following

¹ Concerning family capitalism in the mem sector, we can notably mention the works of Billeter for the interwar period (Billeter 1985 a and b), who pointed out the importance of family links and alliances among the business elite in this sector; Tissot's study about the Paillard enterprise, which showed that the transformation of the firm in the 1920s into a joint stock company didn't lead to the supplanting of the founding families; the work of Müller (1996), who highlighted the persistence of two dynasties of business families for more than six generations; Alain Cortat (2009) research, which underlined the role of family networks for the creation of a coalition among the Swiss cable industry.

² See <u>www.unil.ch/elitessuisses</u>

³ AIAG/Alusuisse, BBC/ABB, Bobst, Bucher, Buss, Cortaillod, Cossonay, Dätwyler, Georg Fischer, Hasler/Ascom, Landis & Gyr, MF Bühler, Oerlikon-Bührle/Unaxis, Rieter, Saurer, Schindler, SIG, SIP, Sulzer, Von Moos, Von Roll and Zellweger Uster/Luwa.

⁴ The 110 biggest Swiss companies had been selected according the following criterions: market capitalization, turnover and number of employees. For more information, see Schnyder et al. 2005.

criterions: they had to belong to the mem sector, and to exist during the whole century, in order to allow a long-term analysis. For this reason, the companies that were bought back were excluded.⁵ Focusing on big companies was a conscious choice, as family capitalism is usually associated with small and medium enterprises.

In order to understand the evolution of family capitalism for the Swiss case, this research is articulated around two main objectives. The first one is to "measure" family capitalism for each enterprise and each benchmark, in order to show its general evolution in the mem sector during the 20th century. For this purpose, we use an enlarged definition of family capitalism, which takes into account family-owned *and* family-controlled firms, but also "new families", i.e. other dynasties than the founding ones. The purpose of this part is to determine on which extent family capitalism did "survive" to managerial capitalism, and then to financial capitalism. The second aim of this research is to highlight the educational profile of the executive leaders of our 22 companies (195 persons), in order to answer two underlying questions. First, how did the general education of mem leaders evolve during the century, and, in particular, what was the impact of financial globalization on this education at the end of the century? Second, did heirs' education differ in a significant way from the one of "outside" directors? Or, in other words, were the former as well qualified as the latter, or did being an heir exempt them from getting a qualified training in order to accede to decisive executive functions in the family business?

The first part of this contribution integrates Switzerland in international comparison for the contemporary period and puts forwards some elements of the Swiss corporate governance in order to understand the significant persistence of family capitalism nowadays; then we present the enlarged definition of family capitalism used in this contribution. The second part deals with the general evolution of family capitalism in our 22 mem companies for the whole century, and develops briefly some case studies. Finally, the third part presents the results for the educational profile analysis, before concluding.

⁵ Exceptions: Cortaillod and Cossonay, which merged in 1992 and were then integrated into the group Nexan (Alcatel); Landis & Gyr, which was bought back by Elektrowatt in 1995; Von Moos, which was bought back by banks, and whose steel production was integrated into Swiss Steel SA in 1996. Nevertheless, we decided to keep these enterprises in our sample because of the key role they played in the Swiss mem sector during the greatest part of the 20th century.

1. Family Capitalism and Swiss Corporate Governance

Family capitalism: the Swiss Case in International Comparison

Three successive kind of corporate governance are usually identified, related to three stages of capitalism: *family* capitalism, *managerial* capitalism and *financial* capitalism. Family capitalism is commonly associated to the First Industrial Revolution, when the firms were owned and controlled by families. With the Second Industrial Revolution appeared a more capital intensive managerial company, and many authors argued that family capitalism was meant to disappear, as a consequence of the firms going public, the growing separation between ownership and control, and the apparition of independent managers, becoming more and more autonomous from the founding families (Berle & Means 1932, Chandler 1980). Finally, the reaction of the shareholders against the "almighty" managers from the 1970s onwards led to a new stage of capitalism: financial capitalism, dominated by investment funds, succeeded thus to managerial capitalism (Batsch 2002, Useem 1996).

However, many recent researches have shown that family capitalism has been able, on some extent at least, to survive through managerial and financial capitalism that succeeded in most of the so-called developed countries (e.g. Colli 2003, Daumas 2003, James 2006 and Colli & Rose 2008). Thus, as stated by James, "The family has played and continues to play a decisive role in the form of economic organization characterized by the legal transfer of ownership rights, a type of organization best described by the term 'capitalism'" (James 2006: 1-2). Moreover, family firms were by the end of the century still important among big and publicly traded companies, as shown in a large research on corporate ownership comparing family capitalism in different countries around the world (La Porta et al. 1999). The authors considered that a company could be defined as a "family firm" when 20% at least of the voting rights were held by an individual actor or a family: according to this definition, there would be 30% of family firms among the 20 largest publicly traded companies in Switzerland (cf. figure 1).

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⁶ In Switzerland, this would on the average correspond to 14.2% of the share capital (Ernst&Young 2005).

Figure 1. Family-owned Firms among the 20 largest Publicly Traded Firms around the World, 1995

Source: La Porta et al. (1999: 492) in Ernst & Young (2005:8).

According to this ranking, Switzerland belonged to the average; its place would however significantly increase if we took into account only west developed countries. Moreover, this research focused on the biggest publicly traded firms; in fact, at the beginning of the 21st century, family firms represented on the average 88,4% of all Swiss companies, "a high rate compared to the rest of the world" (Ernst & Young 2005: 6). Focusing only on big companies (i.e. more than 250 employees), this proportion comes to 70%, and 37% concerning publicly traded companies (Ernst & Young 2005: 4 and 11). Family firm continued thus to play a key role in Switzerland by the end of the 20th century: "... notwithstanding the rising number of managerial firms, this type of enterprise still features prominently in all major branches of the Swiss economy" (Müller 1996: 19).

Swiss corporate governance

Two major features of the Swiss corporate governance can be pointed up in order to understand the persistence of Swiss family capitalism during the contemporary period: a highly concentrated share ownership and a very minimal legal framework. First, Swiss corporate governance was structurally characterized by a highly concentrated share ownership (David et al 2010 forthcoming, Windolf & Nollert 2001): a lot of large companies remained in the hands of a single shareholder, or a small pool of shareholders, this feature being

reinforced by the weakness of the employees in the company, and the marginalization of minority shareholders (David et al 2010 forthcoming: 35-36). This characteristic prevailed during the 20th century: in 1995, many firms among the 110 largest Swiss companies were still owned by a majority shareholder: in fact, only 26 companies out of these 110 could actually be considered as "real" publicly traded firms (Bär 1991 and 1996). In many cases, founding families were able to keep the ownership of their company, as some well-known examples such as Bühler, Schindler, Schmidheiny or Schwarzenbach (Holliger 1974, Höpflinger 1978). Second, during the main part of the century, Swiss corporate governance was characterized by a very minimal legal framework, leading to a large self-regulation reinforced by the total absence of a federal law concerning the stock exchange (Mach et al 2007). As a consequence, there was a lack of protection of minority shareholders, and the real accounts of the firms as well as the shareholding composition remained most of the time very unknown to the outside. Moreover, the existence of legal instruments such as voting right distortions and limitations to the transferability of shares (Vinkulierung) allowed majority shareholders to keep the ownership of their company, even after it had become a publicly traded firm. With the *Vinkulierung*, registered shares were "bound" and could not be bought back by another shareholder without the agreement of the board. This procedure was introduced by the first Swiss Stock Corporation Law (1881), and reinforced by the 1936 "strongly insider-oriented" reform of the Law (Schnyder 2007: 70-86). For a long time, Vinkulierung allowed Swiss owners to keep foreign investors out of the company (see Kaufmann & Kunz 1991; Kläy 1997; Lüpold 2008); in some cases, it allowed families to keep the capital share in their possession (see chapter 2 on BBC). Although there were some important legal reforms during the last decade of the century, according to Ernst&Young 68% of family companies would still be using a dual share regime nowadays as, for example, Roche Holding AG (chemistry), whose owning families Oeri and Hoffmann hold only 9.29% of the share capital, but 50.01% of the voting rights (Ernst&Young 2005: 9).

These elements help us to understand the larger persistence of family capitalism in Switzerland in the contemporary period compared with other west developed countries. However, as mentioned in introduction, the researches we presented above focused on a single benchmark, and did not take into account the historical perspective (cf. La Porta 1999 and Ernst & Young 2005). Moreover, the definition of family capitalism which was used did not take into account the very important question of the *control* of the firm: indeed, a company was considered to be a family firm when an individual actor or a family held a significant part of the capital / voting rights. In this contribution, we decided to adopt an

enlarged definition of family capitalism, which also considered the question of the control (see next part).

An enlarged definition of family capitalism

The first issue of this research was thus to define "family capitalism", as "The definition of family firms is in fact highly subjective and far from being standardized"; in particular, "the 'form' of the family firm largely depends upon the national context and on the historical conditions that shaped its particular path of development" (Colli 2003: 17, 28). For this reason, this contribution takes up the distinction made by several authors between familyowned and family-controlled firms (Colli 2003, Casson 2000): "a firm is said to be family owned when family members own sufficient voting shares, or occupy sufficient places on the board of the directors, to determine the appointment of the general manager or chief executive. A firm is said to be family controlled when the general manager is a member of this family" (Casson 2000: 199, quoted in Colli 2003: 20). A firm can of course be owned and controlled by a family, but both dimensions do not necessary have to coexist: for example, as Joly observed, sometimes a firm which is not owned by a family can be controlled by "successive generations of a same family" (Joly 2008: 66). Moreover, we decided to include in this definition of family capitalism also "new families", i.e. other families than the founding one, when they were present in the board of administrator and / or in an executive position for at least two generations. Thus, our enlarged definition of family capitalism included "all firms in which at least some of the power positions are handed over, linked to the ownership of capital or not, by means of family heritage" (Joly 2008: 66).

At the end, the typology adopted for this research included then family control and family ownership, and founding families and "new" families. We decided that family control reflected strong family capitalism, as "the key issue is not only ownership but above all that of control" (Colli 2003: 20). So when a key executive position in the firm (chairman of the Board of Administrators, general manager or administrative-delegate)⁷ was occupied by a member of the founding family or a "new family" for at least two generations, family capitalism was considered to be "strong". Family ownership without family control was considered to be "medium" family capitalism. For the Swiss case, the main difficulty was then to identify this family ownership, as the voting shares composition of the firms remained secret during the main part of the century (cf. above). In order to overcome this obstacle, we

⁷ See chapter 3, page 15-16.

decided to use instead the composition of the board of administrators, as a seat in this organ usually reflects significant voting shares in the company. As a consequence, we considered that when at least one member of the founding family, or of a "new" one, was sitting on the board of directors for at least two generations, family capitalism was medium, if no executive functions were held at the same time by the family. The following table sums up the typology.

Table 1. Family capitalism typology

Code	Description	Family capitalism
F1	The founding family holds a decisive executive function (Chairman of the BoA, administrative-delegate, general manager)	Strong
F2	A "new" family holds a decisive executive function (Chairman of the BoA, administrative-delegate, general manager)	Strong
M1	The founding family seats in the BoA, but does not hold a decisive executive function	Medium
M2	A "new" family seats in the BoA, but does not hold a decisive executive function	Medium
N	Absence of the founding family, no significant "new" family	None

BoA: Board of Administrators

2. Long-term Evolution of Family Capitalism in Switzerland during the 20th Century

In order to answer our first research question, the two figures below show the long-term evolution of family capitalism for our 22 mem companies during the 20th century according to the typology defined above. As we can see in figure 2, family capitalism clearly dominated during the first half of the century. It began to decline during the second half of the century, but was still dominant at the beginning of the 1980s. Moreover, family ownership without family control was not common: in most cases, families held decisive executive functions (strong family capitalism). At the end of the century, however, we can observe a sharp decline of both family ownership and family control, and for the first time, non-family capitalism was prevailing. Although we used a different definition of family capitalism, our results for the year 2000 tends to confirm those of La Porta (1999) and Ernst & Young (2005) (cf. page 6): 7 out of or 22 companies were family firms at the end of the century, i.e. 32%.

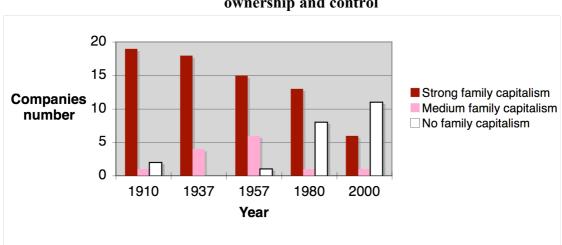


Figure 2. Long-term Evolution of Family Capitalism in the mem sector: ownership and control

Figure 3 shows that although family capitalism was dominated by the founding dynasties during the whole century, new families also played a key role, especially during the 1937-1980 period.

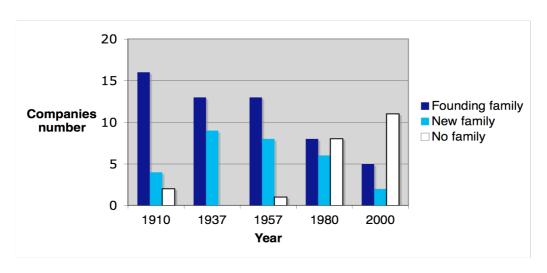


Figure 3. Long-term Evolution of Family Capitalism in the mem sector: Founding families and "new" families

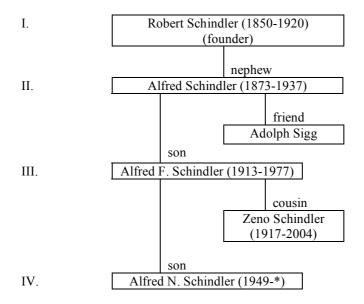
According to our typology, our 22 companies could be divided in three groups: the first one (9 firms) was characterized by a large persistence of the founding family in the company, the second one (4 firms) by the withdrawal of the founding dynasties and the end of family capitalism, and the last one (8 firms) by the establishment of a "new" family instead of the founding one.⁸ All these enterprises shared however a common characteristic: they all were a family firm at some point.

⁸ See appendix 1 for details.

Large persistence of the founding dynasty: the Schindler case

In the first group, the founding families owned and controlled their companies during the whole century (Bobst, Bucher, Metal Zug, MF Bühler and Schindler) or at least until the 1980s (Cortaillod, Landis&Gyr, Sulzer and Von Moos). Among these firms, Schindler was by far the most important one: in 2000, the turnover was more than 8.5 billions of Swiss francs, and the company was employing more than 43,000 persons around the world (Top [...] 2000: 101). Created as a general partnership company in 1874 in Lucerne by Robert Schindler, the firm expanded quickly during the following century with the production of elevators, and later on escalators. In 1906, it was turned into a limited equity partnership firm. Although Robert Schindler didn't have any children, the family managed to keep the ownership and control of the firm since its creation, integrating enlarged family members but also close friends and allied families into the board of directors and the executive direction of the company. Indeed, when Alfred Schindler, Robert's nephew, died in 1937, his close friend Adolph Sigg became the executive director of the company, as the son of the former was too young to assume the task. Nowadays, the Sigg family remains a major shareholder of the firm, along with the Schindler family and the Bonnard family, Jean Bonnard having married Alfred's daughter Marianne in 1939. Moreover, one of the descendent of the Schindler family, Alfred F., introduced during the 1960s a shareholder contract, in order to preserve the Schindler family seizure on the firm (Schumacher 2003: 19). In 2000, Alfred N. Schindler was chairman of the board of administrators, Luc Bonnard (the son of Jean Bonnard) was administrative-delegate, and Jenö Staehlin-Schindler (Alfred F. son-in-law) was sitting in the board. Figure 4 shows the transmission of the firm among Schindler family (main executive directors). The Schindler case shows that the development of a small family firm into a worldwide company is not at all incompatible with the persistence of family control on the firm.

Figure 4. Transmission of the Schindler firm among the family (the link indicates the relationship with the person above)



Decline of family capitalism: the BBC case

In the second group, relating to 4 enterprises, the founding dynasties withdrew from their firm during the century, mainly during the first part (BBC/ABB, AIAG/Alusuisse, Hasler/Ascom and Saurer). This meant for these firms the end of family capitalism. BBC, for example, was created in 1891 by Charles Eugen Lancelot Brown and Walter Boveri. The enterprise was turned into a public company in 1900 and grew up very quickly, subsidiary companies being created in Germany, France and Italy. In 1901 already, almost half of the electrical machines sold abroad by Switzerland were produced by BBC (BBC 1966: 187). While no successor of Charles Brown generation seemed to be interested in the company when the latter withdrew in 1911, the Boveri remained in the firm during several decades. Walter Boveri cousin, Fritz Funk, became a silent partner in 1898; Walter E. and Theodor, Walter Boveri sons, made both a career in their father company. By the end of the 1920s, BBC American competitor, General Electric, had managed to acquire 20% of the company shares, and the Brown-Boveri families didn't hold the majority anymore (Werner 1991: 49). In order to avoid a growing influence of the American company on BBC, or a hostile takeover, the General Assembly of the board decided in 1929 to introduce registered shares, whose value was five time weaker than the bearer shares, but which had an equal voting right (BBC 1966: 192). These registered shares were of course restricted to the Swiss shareholders, and the company remained in the hands of the Boveri family. In 1966 however, the banks involved in the firm were holding the majority

of the voting rights; the same year, Max Schmidheiny, the owner of the Holcim company, was elected as the chairman of the board, this decision having being actively promoted by the representative of the banks in the board, as they were worried by the fact that Walter E. wasn't leading the company efficiently anymore. When Theodor, who was still sitting in the board, died in 1977, it meant the end of the Boveri family in the company.

The arrival of a "new" family: the Zellweger case

Finally, the last group gathered 9 companies where the founding families also disappeared during the century, but were replaced by "new" families for at least two generations (Cossonay, Dätwyler, Georg Fischer Oerlikon-Bührle/Unaxis, Rieter, SIG, SIP, Von Roll, Zellweger Uster/Luwa). For example, the Zellweger company, created in 1892, was not a family company anymore when his founder, Alfred Zellweger, died in 1916. None of his children seemed to be interested in taking up again the firm: Alfred had 6 children, four daughters and two sons: the first one was a pharmacist, and the second one didn't' achieve his education yet. The company, which was providing European hotels and manufactures with electric wiring for light and phone, was then managed by Alfred's long time partners for a while. In 1918, when new capital was required, Jakob Heusser-Staub (1862-1941), an important entrepreneur of the textile industry who already owned several companies, bought the majority of the shares and brought in large capital (Zellweger Uster AG 1975). The company was turned into a public firm and managed by Hans Bissig, an outside director, during several decades. When Bissig died in 1960, Hans Bechtler-Staub was elected as chairman of the board of directors. Born in 1904, Hans Bechtler graduated at Swiss Federal Institute of Technology Zurich and also at the Massachusetts Institute of Technology. In 1933, he founded with his brother Walter the corporation "H.C. Bechtler & Co." and two years later the Luwa company, which was specialized in heating and airing. In 1934, he married Elisabeth Staub, the niece of Jacob Heusser-Staub. The latter died in 1941 and 12 years later, Hans Bechtler-Staub joined the board of administration of Zellweger. After he was appointed chairman of the board, other Bechtler family members joined the company: in 1980, his son-in-law and the two sons of his brother were sitting on the board of directors. In 1993, Zellweger merged with Luwa, becoming "Zellweger Luwa". In 2000, Hans' nephew, Rudolf, succeeded to his uncle at the chairmanship of the board, on which his brother Thomas was also sitting. Both were majority shareholders of the company. The Bechtler represent an interesting case of these "new families", who, in this case, managed to take the control and

the ownership of a company they did not build.

These results suggest that family capitalism prevailed for the greater part of the 20th century in the Swiss mem big firms. First, founding families were often able to overcome the so-called "Buddenbrooks syndrome". Alfred N. Schindler was representative of the fourth generation; Thierry de Kalbermatten, Bobst administrative-delegate in 2000, was the great grandson of the founder of the company, Joseph Bobst; The Sulzer family kept the control and the possession of its enterprise during five generations, and the Von Moos did the same during six generations; Rudolf Hauser, who was Bucher administrative-delegate in 2000, was the greatgreat son of the founder of the family business, Johann Bucher-Guyer. In all these cases, the founding families managed thus to keep the control and the possession of their business during more than three generations, notwithstanding the development of these firms into very big, worldwide enterprises. Second, in several companies, a "new" family replaced the founding one durably, so the company could still be considered as a family firm. We showed how the Bechtler took the control and the possession of the enterprise Zellweger. In the firm Cossonay (cable industry), founded by Jean Marcel Aubert in 1898, the de Coulon family took the control and the possession of the enterprise at the beginning of the 1920s; the de Coulon were also major shareholders of Cortaillod, another cable company, which had majority interests in Cossonay. Several persons, who were often related to each other, were sitting on both boards of administration, and both companies took part in the Swiss cable cartel (Cortat 2009). The case of the Dätwyler company, which was also producing cable and wire works, was slightly different, as this enterprise had been created by a German interest group in 1902. It was then not a family business at the beginning, but in 1914, Adolf Dätwyler became the executive director of the company, as the latter experienced major difficulties. Dätwyler managed to turn it around, and later on he bought back the company, which was named over "Dätwyler AG" in 1946. His both sons managed the firm since 1958, and developed it into a worldwide enterprise. Several other companies showed a similar pattern, and became family business with the arrival of a "new" family. Third, these families were able to use some instruments in order to preserve their interests. We have seen, for example, that the board of directors of BBC introduced registered share in 1929, in order to avoid the

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⁹ As Allende pointed it out, "There is a fashion in international academic circles, related to the subject of family firms and their economic history, referred to as the 'Buddenbrooks syndrome'" (Allende 2009: 1). The Buddenbrooks syndrome, referring to Thomas Mann novel, suggests that the third generation of a family business is likely to lack commitment to the management of the firm, and is often used to explain the decline of family capitalism. Allende however showed that the usual understanding of the Buddenbrooks syndrome in itself is incorrect, as the last owner of the family firm in Thomas Mann novel's, who was representative of the fourth generation, did not lack dedication to the management of the family business.

growing American influence on the company; Alfred F. Schindler introduced during the 1960s a shareholder contract, in order to preserve the Schindler family seizure on the firm. Business families could thus take advantage of the very minimal legal framework of the Swiss corporate governance in order to preserve their interests.

From the situation of the mem sector, we can conclude that the development of managerial corporate control did not lead to the decline of family capitalism. As a matter of fact, several families were able to keep the ownership and the control of their companies. The wearing of family capitalism became significant only in the 1980s, and seemed thus to be rather an outcome of the advent of financial capitalism that took place at the end of the century. Indeed, the increasing weight of (foreign) institutional investors in Switzerland during the 1990s (David et al. 2010 forthcoming) and, more generally, the advent of "investor capitalism" (Batsch 2002, Useem 1996) seem to have had a deeper impact on family capitalism than the advent of managerial capitalism. This evolution also led to some major changes introduced at the beginning of the 1990s in the Swiss corporate governance, which became more and more shareholder value oriented (Schnyder 2007). For example, the adoption in 1991 of a new Stock Corporation Law increased the legal protection of minority shareholders, and "improved the position of shareholders somewhat without prohibiting Vinkulierung. ... More importantly however, the legal motifs for the refusal of a buyer of registered shares [were] limited in a very important way." (Schnyder 2007: 151). At the end, the process of financial globalization that took place during the last two decades of the century challenged the traditional way of coordination and cooperation among Swiss business elites (David et al. 2009), and probably weakened family capitalism. However, family capitalism was still important in Switzerland at the end of the century compared to other west developed countries, as we saw in chapter 1.

3. Educational background of Business Elite

In chapter two, we showed the long-term evolution of family capitalism in the mem sector, considering *family-owned* and *family-controlled* firms. In this chapter, we focus now on the decisive question of the control of the firm, and thus on the actors having a major executive function in the company. In Switzerland, the *de facto* most important organ of a company is the Board of Directors, caring at the same time for its strategic and operational management. In practice, however, the board usually delegates the current executive direction of the firm to

an Executive Board headed by a CEO. As the Board of Directors benefits from a large freedom, there is no legal obligation for a strict separation between the strategic management of a company on one side and its operational management on the other side. Consequently, the board structure of Swiss firms can vary in important ways, and so does the composition of the top management. Indeed, some persons within the Board of Directors, namely the "administrative-delegates", can also assume executive tasks. For this reason, we decided to focus for each company and each year on the chairman of the board of directors, the administrative-delegate and / or the general director (194 persons), as these persons were the actors having a decisive executive function in the company. For this contribution, we decided to focus on the criterion of education, in order first to show the general evolution of the educational profile of the mem leaders, and, second, to see if the heirs' profile, i.e. the members of the founding / "new" families, differed significantly from the one of the "outside" directors.

The changes in the educational background of the Swiss business elites

Researches on Swiss business elites education are not abundant. For the mem sector, we can mention the contribution of Billeter dealing with the interwar period, which pointed out the clear dominance of University degrees among the top managers, mostly obtained at the Swiss Federal Institute of Technology Zurich (Billeter 1985: 61-62), and Widmer's research on 11 mem firms for the 1970-2008 period (Widmer 2009, see below). A few studies focused on the education of Swiss business elites on a longer period. We can notably mention the contribution of Cassis & Debrunner (1990) on banking elites, which pointed out the important persistence of apprenticeship in this sector during the 1880-1960 period, and at the same time the significant increase of university studies from the first World War onwards, mainly related to degrees in Law and in Engineering (Swiss Federal Institute of Technology Zurich) (Cassis & Debrunner 1990: 269-270). On their side, Sancey & Guex, who studied the Swiss National Bank leaders during the 20th century, also observed the progressive increase of their education level (increase of university degrees from the 1930s onwards, and of doctoral degrees from the 1970s onwards). Moreover, they pointed out that concerning University studies, Law was dominant during the whole period, although Economics studies began to increase from the 1970s onwards (Sancey & Guex forthcoming: 18-21). Finally, several studies on Swiss business elites dealing with the recent period pointed out a significant change in their educational background (Davoine 2005, Dyllick and Torgler 2007, David et al. 2009, Widmer 2009). According to these authors, the social profile of Swiss business elites underwent indeed some deep changes during the last two decades of the century. First, business elites became more and more internationalized; second, traditional education in Law declined significantly, and at the same time education in Business Administration and Economics increased strongly. In particular, typical anglo-saxon education, such as MBA, became more and more current; as this kind of education was clearly shareholder value oriented, it had a deep impact on the growing shareholder value orientation of corporate strategies by the end of the century (Schnyder 2007, David et al. 2009). At the end, we can draw two major conclusions from the researches mentioned above. First, the educational level of Swiss business elites increased during the century, as university degrees gradually replaced apprenticeship. Second, traditional Engineering studies declined during the last two decades of the century, and at the same time Economics education increased significantly. The next section shows the long-term evolution of the educational background of our 22 companies' managers, in order to see if it fits in this pattern.

General evolution of the educational background of the mem leaders

Table 2 shows the long-term evolution of the educational background of the leaders of our 22 mem companies. The "Professional school" category represents higher, but non-university education (e.g Winterthour Technicum, a technical school); the "University degree" category gathers all persons having achieved university education; the "Postgraduate education" represents doctorates, but also master education such as MBA.

Table 2. Education of mem leaders: general evolution

In % (in brackets, number of persons)

	Apprenticeship	Professional	University	Postgraduate	Unknown
		school	degree	education	
1910 (44 pers.)	29% (13)	9% (4)	43% (19)	7% (3)	25% (11)
1937 (52 p.)	19% (10)	11% (6)	60% (31)	27% (14)	6% (3)
1957 (49 p.)	22% (11)	10% (5)	63% (31)	37% (18)	12% (6)
1980 (49 p.)	6% (3)	4% (2)	80% (39)	33% (16)	12% (6)
2000 (35 p.)	3%(1)	_	86% (30)	54% (19)	11% (4)

(As the different categories are not exclusive, the total for each year is not supposed to be 100%)

Although our sample per year is relatively small, it is possible to outline some general tendencies. The general evolution shown in the above table tends to confirm the elements in

¹⁰ Höpner (2004) observed the same trend in Germany, whose managerial culture system is often compared to the Swiss one: according to him, managers became more and more trained as financial experts rather than lawyers and engineers, which had a direct effect on the increasing shareholder value orientation among German firms.

the literature mentioned above. First, we can observe a strong decrease of apprenticeship during the second half of the century, and a consistent progression of university degrees during the whole period; moreover, postgraduate education (doctorate and master studies) increased strikingly, as only 6.8% of our mem leaders used to carry on this kind of education in 1910, and most of half of them in 2000. At the same time, the role of professional schools remained rather weak during the century. Table 3 focuses on the kind of education achieved by people having obtained a University degree.

Table 3. Education of mem leaders: University degrees

In % (in brackets, number of persons)

	Technical & Engineering	Law	Economics	Other / Unknown
1910 (19 pers)	68% (13)	21% (4)	11% (2)	_
1937 (31 p.)	52% (16)	39% (12)	10% (3)	3%(1)
1957 (31 p.)	45% (14)	26% (8)	23% (7)	6% (2)
1980 (39 p.)	56% (22)	28% (11)	10% (4)	5% (2)
2000 (30 p.)	50% (15)	17% (5)	30% (9)	3%(1)

(As the categories are not exclusive – some persons having achieved two different kinds of university degrees – the total for each might exceed 100%)

Considering the evolution of university degrees, we can observe in our sample the strong predominance of Engineering during the whole century, however it declined slightly. Law degrees were also quite important; at the same time, degrees in Economics grew slightly (with an exception for the year 1980). But the most striking changes occurred in the postgraduate education, as shown in the following table.

Table 4. Education of mem leaders: Postgraduate education

In % (in brackets, number of persons)

	Technical & Engineering	Law	Economics
1910 (3 pers)	33% (1)	67% (2)	_
1937 (14 p.)	14% (2)	79% (11)	14% (2)
1957 (18 p.)	33% (6)	44% (8)	22% (4)
1980 (16 p.)	31% (5)	44% (7)	25% (4)
2000 (19 p.)	5% (1)	16% (3)	89% (17)

(As the categories are not exclusive – some persons having achieved two different kind of postgraduate education – the total for each year might exceed 100%)

Postgraduate education was clearly dominated by PhD in Law during the 1910-1980 period, followed then by Technical and Engineering sciences, and Economics. But by the end of the century, a radical change occurred, as a very large proportion of our sample (17 persons out of the 19) had made a postgraduate education in Economics, mostly in Business Administration (13 persons). As Widmer (2009) pointed it out for the mem sector, the advent of financial

capitalism and the increasing professionalization of the managers by the end of the century led to a growing shareholder value orientation of the corporate practice, and, notably, to the weakening of the owning families; at the same time, institutional investors became more and more powerful.

Family members educational background

The last section of this contribution deals with the specific educational background of the heirs. We already illustrated in chapter 2 the general evolution of the *control* of our 22 firms. The following table shows more in details how our sample is split on each year between heirs and "outside" directors.

Table 5. Distribution of leading functions in the companies between heirs and "outside" directors

In % (in brackets, number of persons)

	1910	1937	1957	1980	2000
Family members	68% (30)	46% (24)	45% (22)	49% (24)	20% (7)
"Outside" directors	32% (14)	54% (28)	55% (27)	51% (25)	80% (28)
Total	100% (44)	100% (52)	100% (49)	100% (49)	100% (35)11

As we can see, family members ("new" families and founding ones) clearly dominated top executive functions in our 22 mem companies in 1910; in 1937, 1957 and 1980, they were still representing almost half of the leaders; 2000 shows the clear decrease of family capitalism. Most of the heirs were direct descendants of the founding (or "new") families. However, a significant part of them had no blood relationship with the business family, but were linked to it through a marriage; these sons-in law represented 2 persons in 1910¹² and in 1937, 13 4 persons in 1957, 14 6 persons in 1980¹⁵ and no one in 2000.

Table 6 shows the long-term evolution of the educational background of the members of the founding / new families, in order to determine if their education fitted in the general pattern described above, or if some major differences appeared. One of the central issue consisted in determining if theses family members did also have a high degree of education, or if the fact

¹¹ The 2000 decrease was due to the fact that our sample was composed of only 18 firms for this year (cf. note 5 page 4).

¹² Edouard Berthoud-de Coulon, Cortaillod administrative-delegate and Heinrich Sulzer-Rieter, Rieter chairman.

¹³ Heinrich Wolfer-Sulzer, Sulzer administrative-delegate and Walter Hauser-Bucher, Bucher administrative-delegate.

¹⁴ Ernst Naef-Dätwyler, Dätwyler chairman; Gottfried Straub-Gyr, Landis & Gyr administrative-delegate; Walter Hauser-Bucher, Bucher administrative-delegate and Hans Rubli-Weber, Metallwaren Zug chairman and administrative-delegate.

¹⁵ Hans C. Bechlter-Staub, Zellweger Uster chairman; Bruno de Kalbermatten-Bobst, Bobst administrative-delegate; Raoul de Perrot-de Coulon, Cortaillod chairman; Gottfried Straub-Gyr, Landis & Gyr administrative-delegate; Jean Bonnard-Schindler, Schindler administrative-delegate; Rolf Hatt-Bucher, Bucher chairman.

that they belonged to the founding / new family was sufficient for them to access to leading functions in the company.

Table 6. Family members educational background: general evolution

In % (in brackets, number of persons)

	Apprenticeship	Professional School	University degree	Postgraduate education	Unknown
1910 (30 pers.)	40% (12)	13% (4)	40% (12)	7% (2)	10% (3)
1937 (24 p.)	25% (6)	4% (1)	67% (16)	25% (6)	_ `
1957 (22p.)	23% (5)	_	73% (16)	45% (10)	5% (1)
1980 (24 p.)	_	4% (1)	87% (21)	37% (9)	12% (3)
2000 (7 p.)	_	_	86% (6)	57% (4)	14% (1)

(As the different categories are not exclusive, the total for each year is not supposed to be 100%)

As we can see in the above table, the evolution of family members' education fits in the general pattern of the mem leaders' education (cf. table 2): they were on the average highly qualified, university degrees and postgraduate education increasing strongly during the century. The samples are getting to small to draw more specific tables on the kind of education that were achieved, but we can however highlight some general tendencies. During the 1910-1980 period, this education was clearly dominated by Engineering studies, mostly at the Swiss Federal Institute of Technology Zurich (10 persons in 1910, 1937, 1957 and 15 persons in 1980); some of them also studied Law (4 persons in 1937, 1957 and 1980). Again, it seems thus that family members' educational profile was very similar to the one of the "outside" leaders. Although the sample of family leaders holding executive functions has considerably shrunk in 2000 (7 persons), it is interesting to observe that three of them had achieved a MBA: this education being clearly shareholder value oriented, it shows that in some cases, family members were able to adapt to recent changes, and were open to new corporate practice, opposite to more traditional family capitalism practices.

To conclude, we see that being an heir did not exempt family members from getting a qualified education in order to accede to decisive executive functions in the family business. Indeed, when Alfred Schindler, the nephew of the Schindler company founder died, a close friend of the family temporarily took the control of the firm, so that Alfred's son could achieve his Engineering studies (cf. p. 11). Theodor and Walter Boveri, the two sons of one of BBC founder, both went to University: the former learnt electro-technical engineering in Karlsruhe, and the latter achieved a degree and then a doctorate of political economy. Walter and Hans Bechtler both obtained a PhD, respectively in Economics and in Engineering. Moreover, among these heirs, the sons-in-law were especially highly qualified: apart from

two persons, ¹⁶ they all had at least a University degree and, in several cases, a postgraduate education.

Conclusion

Three main conclusions can be drawn from our research. First, family capitalism clearly dominated the mem sector of big, highly export-oriented companies during the greatest part of the century. As we showed in chapter 2, this kind of corporate governance was indeed still prevailing at the beginning of the 1980s. Some characteristics of the Swiss corporate governance, such as a very minimal framework, a lack of protection of minority shareholders and the existence of some instruments such as voting right distortions and Vinkulierung played a key role in the persistence of family-owned companies. However, families were during that time also strongly involved in the *control* of the firms. The advent of managerial capitalism did thus not lead to the separation between owning families on the one hand, and independent managers on the other hand. Second, we saw that during that time, family members were in general highly educated: being an heir did not exempt them from getting a qualified education in order to accede to decisive executive functions in the family business. Until the 1980s, heirs' education was clearly dominated by Engineering studies, as it was for the "outside" managers. Finally, the advent of financial capitalism, the growing importance of institutional investors and the increasing shareholder value orientation of corporate practice led during the last two decades of the century to a clear decline of Swiss family-owned and family-controlled firms. At the same time, the educational profile of the mem managers underwent also a deep transformation: they became more and more trained in Economics, and more specifically in Business Administration, which actively promoted shareholder value orientated corporate practice. The wearing of family capitalism seems thus rather to have been an outcome of the process of financial globalization. Family capitalism remained nevertheless quite significant in Switzerland by the end of the century in comparison to other west developed countries.

¹⁶ Ernst Naef-Dätwyler did only a commercial apprenticeship, and Jean Bonnard-Schindler a commercial professional school.

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Appendix

Table 7. Long-term evolution of family capitalism in the mem sector

Table 7. Long	1910	1937	1957	1980	2000	Founding families	"New" families
I. Large persistenc	e of the fou	ınding dyna	sty in the co	mpany			
Bobst	F1	F1	F1	F1	F1	Bobst	_
Bucher	F1	F1	F1	F1	F1	Bucher	_
Cortaillod	F1	F1	F1	F1		Borel,	
					_	Berthoud, de Coulon	_
Landis&Gyr	F1	F1	F1	F1	_	Landis, Gyr	_
Metallwaren	F1	F1	F1	F1/2	F1/2	Weber	_
Zug							
MF Bühler	F1	F1	F1	F1	F1	Bühler	_
Schindler	F1	F1	F1	F1	F1	Schindler	_
Sulzer	F1	F1	F1	F1	N	Sulzer	_
Von Moos	F1	F1	F1	F1	_	Von Moos	_
II. Decline of fami	ily capitalis	m					
AIAG/Alusuisse	F1	F1	M1	N	N	Naville, Huber	_
BBC/ABB	F1	M1	F1	N	N	Brown, Boveri	_
Hasler/Ascom	F1	F1	N	N	N	Hasler	_
Saurer	F1	M1	M1	N	N	Saurer	_
III. Establishment	of a "new"	' family					
Cossonay	M2	F2	F2	M2	_	Aubert	De coulon
Dätwyler	N	F2	F2	F2	M2	German interest group	Dätwlyer
Georg Fischer	F2	F2	M1/2	N	N	Fischer	Homberger
Oerlikon-	N	F2	F2	F2	N	Huber	Bührle
Bührle/Unaxis						пивеі	Duillie
Rieter	F1	M2	M2	N	N	Rieter	Corti
SIG	F1	F2	F2	N	N	Neher	Frey
SIP	F2	F2	F2	F2	N	Rive, Thury	Turrettini
Von Roll	F2	F2	M2	N	N	Von Roll	Dübi
Zellweger	F1	M2	M2	F2	F2	Zellweger	Bechtler
Uster/Luwa						Zenwegei	Decime

F1: the firm is controlled by the founding family F2: the firm is controlled by a "new" family M1: the founding family seats in the BoA

M2: a "new" family seats in the BoA

N: Absence of the founding family and of a "new" family in the enterprise

⁽cf. table 1 p. 9)