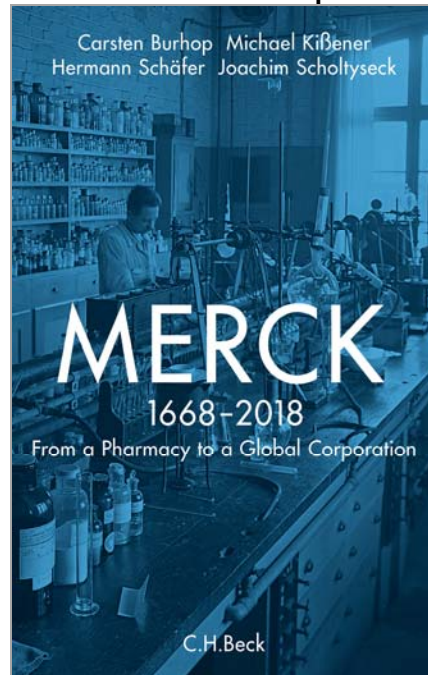


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Merck

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Merck

From a Pharmacy to a Global Corporation
1668–2018

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Introduction

Only very few companies can lay claim to a 350-year-old tradition. The pharmaceutical and chemical firm Merck found its start in an unimpressive pharmacy acquired in 1668 in Darmstadt. It is the origin of the industrial enterprise envisaged in 1827 by pharmacist Emanuel Merck. Becoming a family-owned company in the mid-19th century, it gained international prominence early on and is now a global player, despite all the challenges and crises it has faced. The name Merck designates a brand that is rich in tradition, a brand whose importance is explained by its history. As such, the question of age, origins, and tradition offers substantial potential for identification as the oldest pharmaceutical-chemical company in the world, and it even had this confirmed by the *Académie Internationale d'Histoire de la Pharmacie* in 2003, which shows how much it defines itself in terms of its history. And because the name Merck designates a brand that is rich in tradition, and whose importance is also explained by its history, the question of its age, origins, and tradition possesses substantial potential for identification and orientation.¹ Merck is especially conscious of its traditions not only because it has existed so long, but also because of its ownership structure and company culture and constitution. And in all periods, the preservation of family assets has been just as important as passing on expertise and company ethics.

How much “sense of family”² has been necessary to keep the company in family hands over a total of thirteen generations, a period of time as spectacular as it is unique? As we know, the Mercks did not fall prey to the “Buddenbrooks effect,” the assumption that a family’s entrepreneurial vitality will wane by the third generation.³ For a long time, economic and corporate historians considered family-owned firms “a kind of discontinued model.”⁴ The change from a paternalistic family-run enterprise to a manager-run one was interpreted as the almost

inevitable path to a joint-stock company. This interpretation, attributable especially to Alfred D. Chandler,⁵ is too deterministic – as useful as it may still be heuristically.⁶ In the meantime, a “new appreciation of the family firm” is being noted instead.⁷ The existence of Merck over this long period refutes the frequently advanced thesis that family-owned companies are an anachronistic relic of the 19th century. In the 1920s, the British shipping magnate Sir Walter Runciman pronounced dogmatically: “It is almost a law of nature that a business of any kind rarely passes beyond the third generation of those who founded it.”⁸

This study focuses on the question of how the key factors for continuity across three-and-a-half centuries have survived into the 21st century – so successfully, in fact, that Merck still owns more than two-thirds of a company that now enjoys a comfortable economic position. This can be investigated here in a long-term study and addressed against the background of an eventful German history. It is not only ability and perseverance that play a role when a company survives and prospers for centuries through all the political turmoil, braves the “constant threat to its existence,”⁹ and thus cheats fate. The course of Merck was determined by many influences, by the people involved, by their skills and talents, by strokes of fate, by geographic factors, competitions, and cooperations – and, of course by the bit of luck that success always takes. But luck for 350 years? Because this course was marked by ruptures and continuities, because it was neither always straightforward nor planned or strategically plannable, there is “no royal road for company historiography”¹⁰ for the history of Merck. The question of resilience, that is, the “crisis resistance,” and of how organizations manage not to go under, flows through the entire history of Merck history.¹¹

This study is the first to present the history of Merck in its entirety, analyzing it scholarly using well-founded sources from across the company’s existence. The predominant question throughout is how the firm ultimately emerged from all of its crises stronger than before. The first factor to be considered is the family: Did the family consciously choose a different course than other entrepreneurs, who had been transforming their firms into joint-stock companies since the 19th century? The role of the family is important throughout this history, with respect not only to business policies and partnership agreements, but also to company ethos and culture. So this study is not only a history of events, but also a history of behavior during a period that includes numerous political and scientific turning points.

The aspiration to constant modesty, derived perhaps from Protestant mores, has always played an important part of the family’s conception of itself. But

since the end of the 19th century, managers from outside the family had been playing an increasingly important role. This was certainly the trend of the times; but did the family's fundamental decision to hire managers help ensure that a breakup of the family-owned company – always possible theoretically – never happened? What changes has Merck undergone, and is the company still a family firm in the classical sense today?

The present-day Merck Group obviously has nothing in common with the pharmacy of 1668, despite some nostalgic reminiscences. Without sufficient capital and reserves for times of crisis, no company can survive in the usually insecure and risky markets. How did this family enterprise acquire, secure, and increase its capital for 350 years? This question arises even for its initial years, especially since Merck was not only already pursuing a successful marriage strategy in this period but also engaging in financial and banking transactions, as well as the pharmacy, to an extent not previously realized. In the 19th century, Emanuel Merck kept up this marriage policy and promoted the intelligent, systematic training of his sons and successors. But more than that, his pronounced research instincts and commercial savvy enabled him to exploit the opportunities of an industrializing world. Were these decisions based on long-term, deliberate strategic considerations? Why did the Mercks succeed again and again in finding those members of the family who took up the right position at the right time – during the hand-over from Emanuel Merck to his sons, as well as to his grandsons and to succeeding generations? What impelled them to trust in outside help from the 20th century on, and then withdraw from operative business in wise self-restraint?

This question seems all the more important since, in the second half of the 20th century, it was no longer a problem for married-in experts to run the business just like Mercks by birth. The departure of the last Mercks from executive responsibility in operative business at the end of the 20th century marked the close of an important family tradition. Did the family feel this to be a turning point? The records contain numerous indications of the intensity with which the Mercks identified themselves with their family tradition. But when did this consideration begin, when did the family start to become conscious of its special role? Based on the records available, it is difficult to answer the question of whether a sort of “family culture” has always existed, a culture historically so effective that the family has intervened in time in critical situations to prevent the collapse of the firm. As such, the origins of this family culture remain a matter of speculation.

With a constantly growing family, demands and desires also grew, and

there was a risk of losing what had been acquired, so the question of a long-term business strategy arose. This became all the more necessary when, in the 19th century, the firm transformed from a pharmacy to an industrial operation and diversified with a growing variety of new products. Was this development deliberate, or more the result of pragmatic actions? What role did innovations play, especially at a time when competitors were mushrooming everywhere? Was the establishment of a broad range of medicines and chemicals, becoming a “millipede,” the result of a conscious decision, or was the process that led to a multitude of products a contingent one, a term that today means it was neither inevitable nor impossible?¹²

This raises a further topic: As the Merck firm became an industrial company, politics played a greater and greater role and influenced the development of the family company. While even the late 17th-century pharmacy was subject to the imponderables of the politics of the landgraviate and later Grand Duchy of Hesse, from the 19th century onwards, the influence of wider historical and economic events affected the firm even more. The company was impacted by elimination of customs boundaries in Germany, the Revolution of 1848–49, and the founding of the German Empire in 1871. Even more so, the family firm felt the upheavals of the 20th century, the First World War, German hyperinflation, the Great Depression, National Socialism and the Second World War, the division of Germany, the union of Europe, and finally the reunification of Germany. Did the Mercks have a political credo, and if so, how did it change? What political involvement can we identify, with the Grand Ducal court of the residential city, at the transformation from the empire to the republic, during the Third Reich, and since 1945 in the Federal Republic? Was the Mercks’ concern to prevent or at least limit possible restrictions on their entrepreneurial freedom by external factors – politics? Did the family see the dangers entailed in politics, which were associated with numerous imponderables and risks that were not in their business interests?

Similar questions arise in the field of business. How did the Merck firm act towards business associates and competitors – initially, towards pharmacists and later towards industrial rivals? What selection criteria were there for collaboration? Were there considerations along the lines of: “If you can’t beat them, join them,” of exploiting the status of what was for a long time a merely medium-sized pharmaceutical and chemical firm? Or were the decisions on cooperation made more sporadically and pragmatically, so that there is little point in searching for a systematic, long-term strategy? In order to clarify this, it is necessary to study the variety of forms of cooperation that the company engaged

in, increasingly in the form of trusts and interest groups from the late 19th century on.

There are also questions with regard to the firm's products, for example, whether the path from a pharmacy to a "major pharmacy," and from an industrial pharmaceutical manufacturer to a diversified global science and technology company was predetermined, or if it was not also luck and chance that played a role in this. Is emphasizing the narrative of the "purity of Merck products" enough to explain the firm's longevity?

Reference to the quality of the medicines and numerous traditional products, both medicines and chemicals, is justified, but it cannot explain everything. A glance at the generics business, which underwent several changes, is enough to show this. In addition, and more importantly, Merck failed over multiple lengthy periods to cultivate strong research operations, a failing owing to both its small size and to omissions. Instead, the company was often forced to in-license this expertise. Joseph A. Schumpeter's model of dynamic and creative entrepreneurs who do not create new technologies themselves but refine the existing art and apply it innovatively, seems quite applicable to Merck.¹³ But the question remains of why the company was so successful, despite a partial backwardness.

Part of the answer is certainly to be found in the company's efforts at internationalization, which were already evident at an early stage. Even Johann Anton Merck's (1756–1805) foreign travels were more than a "Grand Tour." His journeys also served his training and enabled him to make research contacts, which were strengthened in the late 18th century and were a forerunner of "internationalization." This included the creation of a network of sales agents at home and abroad, which are already to be seen in the middle third of the 19th century. In the course of what Jürgen Osterhammel termed the "Transformation of the World"¹⁴ in the 19th century, Merck became an increasingly globally active family firm, first in Europe, and then especially in the Americas, and only later in Asia. The various dye manufacturers that were rising to prominence worldwide are often regarded as a vanguard of the expansion of global and transnational market relationships,¹⁵ but the history of Merck teaches us that pharmaceutical firms were ahead of them.

In the 20th century, after these ties had been smashed in each of the world wars, the Merck company's foreign network was reconstructed with breathtaking speed. In this case, the main threads – and a strategy for foreign markets – are apparent, although the focal points in world markets shifted; for example, the major markets in Russia and the U.S. had to be abandoned after the First

World War. And, finally, one has to study the labor relations and company culture of a family firm over the “longue durée” of 350 years, although it is necessarily difficult to draw a line connecting the pre-modern with the post-industrial age.

The partners of the family firm must not be equated with the firm itself. This is because the importance of management is exaggerated if one clings to the conception that these are always “rational decision-making processes by a group of far-sighted men who do the right thing at the right time.”¹⁶ The long-term example of the history of Merck also enables us to answer the intentionally provocative and skeptical question of whether the “internal business environment” is sufficiently stable at all for “possibilities of learning and preserving.”¹⁷ Recent research takes this into account by regarding the respective company, at a level of analysis broader than the individual case, as a “quasi-autonomous organism [...] that seems to function on its own, and whose sole goal and principle of existence [...] apparently consists in generating continuous growth.”¹⁸ The perspective “from above” is supplemented by a look at the work and wage structures, company welfare policies, and the relationship between management and staff – in other words, the “micropolitics in the company.”¹⁹ The lengthy period under study makes it possible to pursue recent research approaches of economic and company history as well, both questions of organizational and institutional history,²⁰ and those of company culture.²¹

It is not unusual for a large business such as Merck to be the focus of a study. Over the last twenty years, numerous long-standing German companies have no longer presented their history as an insider’s view in a *Festschrift*, as was customary for a long time, but have had it studied academically, based on a broader set of sources. A well-founded, historical appraisal of the company history must also subject some “master narratives” handed down over the centuries – the success story of a little pharmacy in a provincial capital growing into today’s global player on a continuing course of expansion – to critical analysis on the basis of the sources.

Therefore, in addition to the intersecting histories of the company and family, the economic, social, political, and scientific history of the respective periods has been integrated into the study. Developments in medicine, pharmaceuticals, and chemistry are closely linked to the history of Merck. However, in the given framework, it was far from possible to treat all aspects; this applies especially to many aspects of pharmaceutical history. The presentation is based mainly on archival sources that have barely been evaluated before now; it takes current historiographical methods and approaches into account, without forc-

ing Merck's history into the Procrustean bed of theory. Abstract explanations of a "homo oeconomicus"²² are no help, for they do not allow for any generally applicable statement of how "individual mental operations" proceed.²³ And entrepreneurial decision-making processes cannot be explained comprehensively by annual reports, financial statements, and statistical quantifying material alone, much less by econometric methods. In other words: The paradoxical situations that appear on many pages of the company history cannot be understood merely by studying internal economic logic. The "empirical variety and contradictoriness of real life"²⁴ cannot be "calculated." Yet a look at this "internal economic logic of entrepreneurial actions" in society as well as politics is essential and requires an analysis of the preconditions and consequences of the process of "institutionalization" of a modern firm such as Merck.²⁵

This starting point has resulted in a structure of four main sections. In the first section, on the early modern age, what has been handed down about the early history of the Merck firm is analyzed critically, following the family history and the development of the pharmacy in Darmstadt. In this section, we discuss in particular the ways and forms in which the foundations were laid in the pre-modern period for the industrial development of the Merck company from the 19th century onwards. The part also considers the sociopolitical upheavals resulting from the French Revolution of 1789 and the Napoleonic Wars, which substantially altered the conditions for economic activity in the landgraviate and, after 1806, the Grand Duchy of Hesse-Darmstadt. We examine the origins of the purchaser of what was later called the Engel-Apotheke, Jacob Friedrich Merck, who came from an already well-to-do family belonging to the circle of established Lutheran exiles in the imperial city of Schweinfurt, and reconsider numerous more speculative ideas from previous research. The development of the pharmacy in the 18th century took place in difficult circumstances since the early deaths of designated successors repeatedly gave rise to critical situations that threatened the family fortune. How did the distinguished wives of the deceased succeed, despite all the ruptures in the succession of the generations, in holding on to the assets and keeping the pharmacy in the hands of the family, indeed, in ensuring and expanding their "market share" in and around the residential city of Darmstadt? Three crucial factors are discussed here: first, the fact that the wives maintained the pharmacy as their commercial basis by hiring people to manage it, and by consistently economizing; second, how – even in times of crisis – by clever match-making and a consistent inheritance policy, the family fortune was maintained, and even increased; third, in what manner the family's prosperity was cau-

tiously maintained and expanded by a lending business pursued from the beginning. The pharmacy, the family's marriage policy, and lending to private persons and "public" institutions, such as municipal authorities and the landgraviate's treasury, rooted the Merck family deeply in the region, tying it closely to the local rulers, who were always deeply in debt. In this context, we will study the achievements of war councilor Johann Heinrich Merck (1741–1791), who is noted for his varied gifts, highlighting his importance for the pharmacy and the financial flourishing of the Merck family. The Darmstadt pharmacy was certainly not a focus of the life of this man of letters, naturalist, and friend of Goethe's, but we can show numerous connections to his pharmacist relatives, especially to Johann Anton Merck, that benefited the pharmacy and its growth. The marriage of his daughter Adelheid to Johann Anton Merck became a decisive foundation for the development of the Merck family's economic basis. The study will analyse how the existing capital was combined and then made available to their son Emanuel (1794–1855); it will also examine the sound, modern scientific education these assets made possible, an education he utilized to take the fortunes of the pharmacy and family into his own hands. And not least, we will highlight the notable role of the Merck women in this section.

However, the potential for innovation in the Merck pharmacy remained limited under Johann Anton and Emanuel at first. Why did the pharmacy's business expand but initially remain very much tied to the traditional business behavior and the customary range of products of an early modern pharmacy? In order to answer this question, we will interpret the coincidence of "endogenous" and "exogenous" factors that enabled this family, and this pharmacy in particular, to achieve the leap forward into a new age and a new dimension of economic activity. Centuries of sound management of capital in the family, which did not allow major deficits and rigorously made every effort to keep and increase the family fortune, made it possible for the family's offspring to enjoy a modern scientific education, which was a promising factor in the new scientifically oriented age. Emanuel had inherited an interest in the natural sciences from his father and acquired his scientific skills from leading teachers of pharmacy studies and chemistry of the time. One of them, Johann Bartholomäus Trommsdorff, also taught him to think in economic terms, so that he was able to learn lessons from the first negative experiences of his family with proto-industrial production methods. But it was only when the social and economic conditions in Hesse-Darmstadt, which was raised to a grand duchy in 1806, began to change as a consequence of the Napoleonic upheavals and reforms

that the prerequisites existed for Emanuel to be able to risk a start into a new future, given capital, pharmaceutical skills, and commercial understanding. In the end, what distinguished him from others in this situation was his courage to actually do it.

The second section addresses the business in the 19th-century era of industrialization. The normal view of the periodization of this era sees the chemical industry, along with mechanical and electrical engineering, as one of the leading industries of the third wave of industrialization beginning at the end of the 19th century. But the pharmaceutical-chemical industry had its roots in early industrialization, when the textile and iron-working industries, as well as mining and railways, were the leading sectors. What the relevant research has termed “surges of industrialization” of the pharmaceutical industry²⁶ were, rather, impulses for the founding of proto-industrial plants or manufacturies, some of which gradually became industrial plants upon the introduction of the steam engine. The discovery of alkaloids produced a “paradigm change in pharmaceuticals” because this led to chemically defined drugs derived from plants.²⁷ This development was the background against which Emanuel Merck started the large-scale production of alkaloids.

This section explores from when and under what conditions the Merck pharmacy became an industrial enterprise and its proprietor Emanuel Merck became an industrial entrepreneur. In 1827, Merck launched his business “take off” in three steps. This is explained with regard to the technological conditions, the know-how related to pharmaceuticals, chemistry, science, and process, and new networks, and finds its logical conclusion in the founding of the Merck family partnership in 1850. The description of the business’s transformation from a pharmacy to an industrial plant also requires a look at the staff, who became more and more important with the birth of the industrial plant from the pharmacists’ tradition. Whether and how corporate structures developed organically, interacted, and changed – how long, for example, the principal of the pharmacy kept all the strings in his own hands, and when and how he began to delegate responsibilities – whether and how the government-regulated pricing of the pharmacies could be transferred to the practice of mass production, are other questions that are material to the competitiveness and marketability of a firm like Merck. This phase was dominated by the continually directing and decision-making personality of Emanuel Merck as a pharmacist, scientist, networker, and industrialist, but also as a father who laid the foundations for an expansion of the family business through the education he provided for his sons.

The three decades from the 1850s to the 1880s seem to be a transitional phase. While the formal founding of the family firm in 1850 marks a clear turning point, the end of this phase cannot be determined precisely (due in part to the problems of the sources for this period), but lies somewhere in the 1880s. Emanuel Merck's death in 1855 did not leave a visible vacuum because he himself had set the course for the firm's survival. But this is all the more reason to ask about the causes of the commercial, technological, and organizational problems that became apparent from the 1870s on, resulting in stagnation in this transitional phase.

The role played by the network of knowledge-based society since early industrialization – the mutual influence of research and researchers – is an important question. Equally important is whether and how this knowledge was secured and furthered under increasing competition and the resultant tendencies to concentrate and form trusts beginning at the end of the 19th century. The century of “globalization,”²⁸ accelerated in particular by the growing transportation infrastructure, brought with it not only an expansion of the markets with respect to raw materials and sales, but also more competition for Merck. But why did the firm, now doing business as E. Merck, become a “*very early mover*” and global player, long before German industry began to play an increasingly important role on the world market?

The successive entrance of the generation of Emanuel Merck's grandchildren into the firm starting in the 1880s, and the hiring of a new generation of employees trained in pharmaceuticals, chemistry, and commerce produced a revitalization that was accompanied by considerable expansion on foreign markets. But why exactly were the two decades before the First World War marked by rapid – even headlong – growth after the construction and occupation of the new factory in 1903–04? Would this expansion, which necessarily overshadowed the pharmacy tradition, not have been possible without the participation in far-reaching marketing agreements? How did the expansion affect the patriarchal company culture?

The growth of the Merck company was abruptly interrupted by the outbreak of the First World War, as the third section makes clear. While the following three decades do not represent a story of degeneration, they were characterized by continuous crises. The export business covering all continents that had been lost in the war had to be laboriously reconstructed. What were the reasons that this was achieved astonishingly well within a single decade? Does the inclusion of managers from outside the company and the industry in the 1920s explain why the firm managed to make a profit in the late 1920s and

during the Third Reich? Why did the firm accommodate the Nazi regime during the Third Reich, and why did Karl Merck and Bernhard Pfotenhauer, who was brought in from the outside, even participate in secret armaments projects? Were they trying to prevent a weakening of the family business? Were the Mercks afraid of losing out against their more powerful competitors in the chemical and pharmaceutical industry, who were already collaborating with the regime – such as I. G. Farben? The description of the working and living conditions of the prisoners of war and foreign and forced laborers in Darmstadt is intended to give an answer to the question of motives and responsibilities. The firm's strategies in the last phase of the war are also outlined, when the main concern was surviving the impending fall of the Third Reich. The end of the war in 1945 was by no means the blank slate of a “zero hour,” as was often said. Thus, the prosecution of Nazi crimes by the Allies and the denazification program offer an opportunity to analyze how the Mercks dealt with the disastrous legacy of the Nazi regime. The reconstruction of the company's business practices after 1945 also permits a glance at the question of continuity and disruption in the years before the West German *Wirtschaftswunder*, or “economic miracle.”

More so than the second and third sections, the fourth part, on the period since the Second World War shifts the focus from family to company history. Looking back, the years since the founding of the Federal Republic of Germany have been successful ones for Merck. There were always net earnings, and the number of employees and sales figures have grown almost continuously. But why was the turnover almost exclusively in Germany at first, while today more than 90 percent of it derives from foreign business? What is the explanation for the enormous internationalization of recent decades? How did they manage to gradually repurchase the foreign subsidiaries lost in the Second World War? What was the cause of the surge of internationalization in the 1960s, and the founding of subsidiaries in the U.S., France, and Japan? What was the purpose of the other acquisitions and holdings in the United Kingdom and Italy, and later of the takeovers, such as the French firm Liphia and the U.S. firm Sigma-Aldrich? Why did the company make use of a Swiss holding company to finance and manage the foreign subsidiaries, as it had done in the period between the two world wars; and why was this model abandoned in 1995, and all operative units merged into today's Merck KGaA [*Kommanditgesellschaft auf Aktien* = corporations with general partners]?

Merck withdrew from the time-tested mass production of vitamins and pesticides, and concentrated on pharmaceutical “specialty products.” Yet why

did the management, despite some setbacks in product development, obviously never consider abandoning the pharmaceutical sector? Were acquisitions of other companies and partnerships with subsequent successful production of medicines (such as Glucophage for diabetes, the cancer treatment Erbitux, and multiple sclerosis drug Rebif) part of a long-term corporate strategy? Why did the chemical products (called “performance materials” today) finally become bestsellers along with liquid crystals? What is the explanation for the success with pigments, which are used mainly in the automotive and cosmetics industries? The third pillar of the multifaceted Merck firm is the modernized laboratory business, which is labeled “life science” today. The staff of this business sector sell thousands of chemicals that are used mainly in researching, developing, and producing medicines, but also in other industries, such as the foodstuff industry. This business has a long tradition at Merck, for Merck has been producing goods of this type for many decades. In particular, the major takeovers of recent years – Millipore and Sigma-Aldrich – have increased the importance of this business sector.

Directing this many-sided, rapidly growing, and by now large business calls for managerial capacities that exceed the abilities of a family. The restructuring was a success, headed first by Karl Merck, and later by Hans Joachim Langmann. But there were also periods in which development was less straightforward. The late 1950s and early 1960s, as well as the late 1980s and early 1990s, presented challenges. In both cases, the unsatisfactory development of sales and earnings was accompanied by a troublesome change at the head of the firm. In the summer of 1959, Karl Merck resigned as chairman of the Executive Board but did not join the Supervisory Board until two years later. Even then, it took some years until the business was stabilized under the direction of Langmann and later, despite an acquisition offer from BASF, enlarged as an independent family business. Things became critical again in 1989 when Langmann reached the age of 65, and the question of succession was discussed openly within the family, against the background of a weakening trend in the business. Was the transformation into a KGaA and the capital increase via public offering, which resulted in the family holding only 75 percent of the capital, a necessary precondition for seizing the opportunities of Europeanization and globalization, and converting Merck from a Germany-centered business to a global one? Why did the family members gradually withdraw from the operational company management? Is Merck still a classical family business, now that it has its fourth CEO from outside the family since the turn of the millennium? Has the Merck family withdrawn into the role of being a passive major shareholder, or does it

still play a decisive role with its 152 partners by now, via the Family Board and the Board of Partners? We will therefore also examine how informal decision-making among the partners functions, along with the formal way in which the family maintains possessions of its company as assets, a practice that serves to ensure the continued existence of Merck as an independent family business.

Sources

As a rule, family firms are more interested in their own origins and history than firms with other ownership and organizational structures. This is usually demonstrated by the establishment and upkeep of a professionally run archive. Merck's corporate history has been handed down successfully in Darmstadt due mainly to the centuries-old interest of the family and management. Since there is an abundance of relevant sources close at hand, conditions for studying the history of the Merck Group – today a global player headquartered in Darmstadt – are favorable both in general and in comparison to other firms in the chemical-pharmaceutical industry. This applies in principle to the entire period since 1668, the year in which Jacob Friedrich Merck purchased the Apotheke am Schlossgraben [Pharmacy at the Palace Moat], of which the modern firm considers itself the successor. The contents of the Merck Archive are, indeed, the most important and most utilized source of information for all the sections of this first comprehensive academic study of the company's history. So the Merck Archive in particular – as well as the company museum, the exhibition areas, and the library inventory – may be considered the central and most productive source of recollections of the exceptionally long history of the firm, both inside and outside the company.

As is now customary for projects of this nature, the authors of this history were granted unrestricted access to the files in the Merck Archive, and the company did not interfere in any way with the contents of the manuscript and book. It was financed by a third-party grant-funded project at the University of Bonn. While it is gratifying that the sources in the Merck Archive allow a comprehensive inside view of Merck's history, numerous gaps had to be filled by systematically supplementing information from external archives. And the view from outside, whether of competitors or of government bodies, was made possible mainly by external records. In addition, it was necessary to view Merck's early history as a pharmacy from the perspective of regional history because the

specific circumstances of the region were key to economic developments from the pre-modern period to the present. We queried relevant sources from a total of more than 56 archives in Germany and abroad, and ultimately evaluated files from more than two dozen archives.

The Merck Archive

The present Merck Archive, the company archive, is based on the family archive founded in 1905 and on company material; these were combined into a “House Archive” in 1959. This provenance, in combination with different or changing functions and focal points of the two holdings, must be considered in all research. After the founding in 1905, the emphasis was at first on intensive genealogical research; this remained the dominant purpose of the archives for a long time and was accompanied by the establishment of specific traditions. The holdings for the period prior to 1800, for example, are influenced strongly by this intended establishment of a tradition, for they only partly represent a natural accumulation. They are far more the result of intensive searching and collecting, which sometimes gathered together extensive material from a wide variety of sources in order to obtain information about the activities and fates of the family’s ancestors. The results of this collecting were then grouped into topic holdings sorted by the histories of individuals. The older classification system of the family archive still showed this approach since it followed the system of the genealogical tables for the Merck family. And this interest in the family tradition is also reflected by the *Mercksche Familien-Zeitschrift*²⁹ [Merck family journal]. Founded in 1913, this publication followed the tradition of research into family history, and intensified this research, especially in its early years. Popular interest in research into family origins was accompanied by a new methodical, academic form of family studies, which was carried out not only by the nobility but also by important bourgeois families since the late 19th century.

Typically involved in this were Protestant pastors, who were in general the driving forces of the genealogical movement. Pastor Karl Spieß (1873–1921) was the first archivist of the Merck family, having started circa 1907,³⁰ he was followed in 1921 by theologian and archivist Fritz Herrmann (1871–1938).³¹ After the latter’s death, Otfried Praetorius (1878–1964) assumed the editorship of the family newsletter and provided advice for the family archive, with support coming increasingly from Friedrich Wilhelm Euler (1908–1995), who even be-

fore the Third Reich had devoted himself to anti-Semitic genealogy and “racial hygiene.”³² During the Third Reich, National Socialism was little mentioned in the *Mercksche Familien-Zeitschrift*, but in the postwar period, the topic became taboo in the archive and the firm for a long time.

In 1960, Euler succeeded Praetorius, by then over eighty, thanks to the patronage of the chairman of the Merck Supervisory Board, Dr. Fritz Groos (1889–1971), and probably against the wishes of Fritz Merck (1889–1969). With the financial assistance of Merck, Euler was then able to found the Institut für Personengeschichte [Institute of Biographical History], formerly the Institut zur Erforschung historischer Führungsschichten [Institute for the Study of Historical Ruling Classes], in his hometown Bensheim,³³ which underscores how the genealogical interest of the archive was still dominant at that time and determined the archive’s holdings. While Euler was only director of the archive for three years, he remained editor of the family newsletter until it ceased publication in 1975. With the founding of a separate public relations division in 1963, and Dr. Fritz Ebner (1922–2010) becoming director of the archive, the facility moved past the traditional focal points, and a consistent acquisitions policy independent of specific interests was implemented that corresponds to modern archival work. This shift was especially due to the professionalization of the archive in the late 1970s (archive director 1979–2001, Dr. Ingunn Possehl; since 2001 Dr. Sabine Bernschneider-Reif). This included systematically registering the holdings in a computer database and assigning corresponding call numbers. A new, self-critical examination of the firm’s history began in 1998, including the initiative to begin discussion sessions with former forced laborers, and Merck joining the Erinnerung, Verantwortung und Zukunft (EVZ) foundation, a fund for compensating victims of the Nazi regime established by German businesses in February 2000.

However, the long-term orientation of the older acquisitions remains a specific feature of the archive and must be given critical consideration when using this source.³⁴ For the period up to 1800, there are extensive holdings in the Merck Archive, but their contents are only of limited substance (Holdings A, B and C), covering individuals to a large extent, and the history of the Merck pharmacy little or not at all. There is no business correspondence preserved in total, or serial sources. The density of coverage is slight and characterized by a wide variety of unsystematically preserved individual files of various origins. There are only a few individual documents from the pharmacy purchased by Jacob Friedrich Merck in 1668. Only from about the year 1800 on do individual books of accounts exist, which permit some insight into the entrepreneurial

activities of the Merck family and the innovative quality of the pharmaceutical products it produced. In this context, scattered holdings in the regional government and municipal archives and at the different places where the early Merck pharmacists worked (Gdansk, Schweinfurt, etc.) play an important role for documenting stages of people's lives or business activities in this period. Important insights can also be gleaned from the correspondence from individuals such as Johann Heinrich Merck, and, above all, from Emanuel Merck's teacher, Johann Bartholomäus Trommsdorff, now edited.

This finding also applies in part to the section dealing with the 19th century.³⁵ This is also based in part on the holdings that arose mainly from a passion for collecting motivated by interest in individuals' histories, especially for the period up to 1890. So the preservation of occasional account ledgers and copybooks may be considered a stroke of luck because their analysis, largely performed here for the first time, and involving difficult evaluation of the sources, sheds light on Emanuel Merck's worldwide connections and on his increasing product diversification. For the period between 1850 and the second half of the 1890s, there is a striking gap in the holdings, which contemporaries were already lamenting at the time;³⁶ this is probably because, as part of the move to the new plant in the north of Darmstadt, numerous documents no longer needed for current business were thrown away or lost. The situation of the holdings improved considerably in September 1897³⁷ once the management ordered first the Scientific Laboratory, and then the heads of all units, to submit annual reports on their activities, starting retroactively with the financial year 1896–97.³⁸ Essential for this period and the following decades is the correspondence of the partners (Holding B), the materials on the founding of the Interest Group and its work (Holding F), on the internationalization of the firm (Holding H 20), on employees and welfare social services (Holding J), on company organization and the building of the plant (Holdings J and O), and on contracts (Holding R).

The fact that the management structures and bodies were not very formalized until after the First World War along with the lack of minutes from their meetings creates the problem that the role of the partners can usually only be explored indirectly, and then only in terms of interactions with the executives. Decision-making processes often remain unclear, despite varying quantities of files, since important agreements were presumably made orally, and minutes discussions – especially concerning cooperation in the pharmaceutical Interest Group in which Merck played a leading role – are only records of the results. The book "Minutes of the business evenings," explicitly labeled "secret," offers

occasional insights into decisions by the partners for the period from 1894 to 1900. Their correspondence with one another also permits partial insights into decision-making processes, but the existing holdings are so unbalanced that one can only draw cautious conclusions from it. And finally one must consider that the annual reports from the units also preserved for the following period, which are per se very valuable, may sometimes have been written with the intention of demonstrating successes and emphasizing the importance of their own work. This applies even more so to the reports of their activities requested on the occasion of celebrations marking periods of service with the company, although they do offer a many-faceted, very important supplement to the holdings – especially in individual cases of executives. The archival material allows for interesting statements about employment contracts, salaries, wages, and other social topics here and there, whereas serial quantitative material on business developments is only available from the 1890s on. And there are no holdings preserved on some important persons, such as Louis Hoffmann (1825–1892), the first authorized representative.

For the first half of the 20th century, the types of sources mentioned for the 19th century, with the problems associated with the sources described above, are supplemented by extensive business correspondence and more private correspondence of the family. This material, comprising several hundred archive call numbers, has been evaluated comprehensively for the first time for this study. In addition, use was made of records of interviews with contemporaries created in the 1970s and 1980s, which give valuable information about subjects on which written sources no longer exist, despite the critical issues pertaining to such sources. Certain topics, such as the “palace revolution” of managing director Bernhard Pfothenhauer in 1942, which almost brought an end to the family business, are extremely well documented, and can therefore be presented and analyzed in detail, because of their central significance. By contrast, we have skimpy records on the company’s relations with banks, which were of essential importance at times, and on the production of hydrogen peroxide, which involved Merck in the wartime economy of the Third Reich. While the documents on the employment of foreign and forced laborers are quite informative, the files on the “secret companies” directed mainly by Karl Merck and Bernhard Pfothenhauer are missing in particular; these were obviously destroyed systematically at the end of the war and can no longer be reconstructed satisfactorily, even with parallel holdings. In the postwar period, the years under the Nazis were hardly discussed. Pfothenhauer’s “palace revolution” was occasionally mentioned cryptically, for example, in a speech by Fritz Merck, as a “very un-

fortunate event” for the cohesion of the family.³⁹ The Nazi period played a role in the following decades just as seldom as Nazism had been a topic in the *Mercksche Familien Zeitschrift* from 1933 to 1945. Typically, lengthy articles such as “Kriegsrat Merck fördert den Kupferstecher Johann Leonhard Zentner (1761–1802) [war councilor Merck Promotes the Copper Engraver Johann Leonhard Zentner (1761–1802)]” were featured instead.⁴⁰ Even at the tricentennial celebration in 1968, the period of the “Thousand-Year Empire” was omitted entirely.⁴¹

A specific situation, familiar from comparable studies, results when regarding the events of the firm’s 350-year history for the time in which history – in the words of Barbara Tuchman – “is still smoking.”⁴² In view of the density of the source material, the section for the period after 1945 concentrates on documents from the management and Executive Board. About 400 volumes of files, mainly minutes, were evaluated extensively. However, these holdings were only available until the financial year 2006 since those later documents, which are, in part, still important for the current course of business, are not yet in the archive. Furthermore, the texts, mostly drafted as minutes of decisions, give little indication of the intentions of the individual decision-makers. In order to make up for this shortcoming somewhat, further correspondence and a few reference files have been evaluated. From these materials, specific events of the firm’s history, such as the re-acquisition of the foreign subsidiaries lost in the Second World War, the founding of the joint-stock company in 1953 and its reversal in 1970, the background and results of the 1971 strike, and the initial public offering in 1995 can be followed thanks to a solid foundation of documents. The organization of the firm, its welfare policies, and the internationalization of the business can also be traced appropriately.

Various reports from auditing firms and management consultancies that examine all relevant sections of the business proved to be a particular fruitful source. However, they have to be read with an especially critical eye, because the perceptions of their authors are determined by economic views of the times. The same applies to some preserved recollections of executives or department heads, which are helpful for the analysis of internal procedures and the focal points of their work but are, of course, subjective. While materials from external archives on the firm’s most recent history are only available in special cases, and holdings such as those of the Hessian Ministry of Commerce cannot yet be used at all, supplementary material can be found in relevant weeklies and magazines. The interviews conducted with some leading employees were also informative. However, despite the extensive holdings for contemporary history, some

central questions and problems were not addressed even for the most recent times, because the necessary source material does not exist. For example, hardly any data on sales and profits, yields, loans, reserves, or hidden reserves are available, even if such data appear in the official printed annual reports – the data presented there are either too incomplete for historical analysis, or not verifiable. Material exists on the Merck AG holding company in Zug, Switzerland, which was of central importance as a financing instrument of the *Offene Handelsgesellschaft* (OHG) [general partnership]. But the holdings on the foreign subsidiaries in the group's archive are still incomplete. And, finally, it must be noted that research into contemporary company histories runs into limitations of access to files because certain personnel files are subject to data-privacy rules, and bequests are only accessible to a limited extent.

[...]

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