Family Assets and Liabilities in the Innovation Process

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Innovation in family firms is often driven by family assets, valuable resources that are particularly prevalent in family firms. For example, they have particularly strong networks that can be deployed in an innovation context. These family assets can over time atrophy and stifle rather than stimulate innovation performance. However, family firms can fight this process by institutionalizing innovation within the family and the firm by means of family and corporate governance and through incentivizing key individuals in the innovation process. (Keywords: Family Firms, Innovation, Family Assets, and Corporate Governance)

The meanings conveyed by the words "family firms" and "innovation" may seem to be at odds: Family firms smack of tight control, paternalism, risk aversion, the Buddenbrooks syndrome, lengthy CEO tenure, and traditional industries and brands—all of which seems counter to innovation, entrepreneurship and renewal. By "family firms" we mean firms in which decision making has been and is influenced by more than one generation of a family, the family being involved through ownership or leadership or both. However, many family-owned and managed firms maintain a strong focus on various kinds of innovation (i.e., innovations in products, processes, management systems and organization, business models) that has often been a key driver of gains in market share and profitability for these firms. Prominent examples include Toyota (sustained incremental process-innovation), Lego (recent dramatic management innovation), Siemens (product, environmental, and social innovation over more than a century), Daregal (innovation in technologies to dry and freeze herbs), and Heraeus (160 years of sustained product and process innovation in the precious metal industry). So-called "Hidden Champions"[1] are typically privately held family firms that have kept a very low profile while innovating their way to becoming leaders in their market niche.

In spite of such examples, some of them obviously very prominent as well as highly diverse, those "firms that have remained family owned have been largely

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ignored by innovation researchers."[2] Conversely, few family firm researchers have dealt explicitly with innovation.[3] The lack of a sustained research effort in the innovation/family firm interface means that little is known about how family firms perform in terms of innovation relative to non-family firms. While (usually indirect) evidence exists, it is also mixed.[4] Thus, in terms of family ownership (i.e., the relevant firms may or not be *de facto* family-managed), some studies indicate that family ownership harms innovation,[5] while other studies find that family ownership benefits innovation.[6] Such conflicting findings are not surprising, given the small number of papers on the subject.

However, the conflicting findings may also stem from not sufficiently taking into account the multitude of possible "family assets."[7] We take these to be value-creating resources[8] that are unique to family firms, such as the specific name, reputation, legacy, network ties, and cultural and family values of such firms.[9] There are indeed many cases of such family assets driving innovation. At Heraeus, there has been a family tradition of acquiring doctoral degrees and holding high-level research positions in chemistry and physics, involving very strong networks in these scientific fields that have given the group privileged access to cutting-edge scientific knowledge. Family values may also drive innovation. For example, the history of innovation and technology development in Siemens begins with Werner von Siemens, the inventor of the point holes way of telegraphing that partly supplanted the less efficient Morse code. Today, the company uses this legacy as a value-based driver of innovation to such an extent that innovation has become a core part of the identity of Siemens. Van Eeghen, the 350-year-old Dutch trading company, has coined the term "functional adaptability" to describe how a proactive mindset and innovations have been the key to the company staying competitive since 1776. The phrase works as a value-based lever in the service of proactive innovations that respond to those socio-economic changes that create obstacles to existing business strategies.

In this article, we build on the resource-based view of strategy, to which we add specificity by drawing on key ideas in applied microeconomics[10] and network sociology[11] to show how and why family assets may drive innovation. We adopt the premise that "there are strong theoretical reasons to believe that the antecedents and effects of technological innovation are different in family and non-family firms"[12] and we unfold a number of such theoretical reasons. In some key respects, it is likely that family firms may enjoy an innovation advantage relative to non-family firms; for example, family firms may enjoy greater family-based trust and loyalty in relevant networks, and this may facilitate access to resources that can be deployed in the context of innovation.

However, a dangerous dynamic can be at work in family firms. Over time, those family assets that uniquely contributed to innovation can become a liability for further innovation, somewhat akin to Leonard-Barton's[13] description of how "core capabilities" can become "core rigidities."[14] Note that this is a second possible reason for the conflicting findings in the literature on family firms and innovation,

as some family assets may have become liabilities in some family firms, but not (yet) in others. Based on qualitative research on family firms,[15] this article describes how family assets can morph from being core capabilities in the innovation process into becoming core rigidities and even liabilities for this process.

How Family Assets Drive Innovation

A Family-Firm Advantage in Innovation?

Although the innovation and the family business research fields are both huge ones, relatively little research directly addresses the overlap between these fields. De Massis, Frattini, and Lichtenthaler[16] were able to identify only 23 articles within a sample of 215 papers on family business that explicitly dealt with various aspects of innovation in the context of family businesses.[17] Not surprisingly, these authors could identify a long series of important research gaps in this small literature, reaching from the very fundamental and generic (e.g., are family firms more or less innovative than non-family firms?) to the more partial (e.g., whether family managers' higher propensity to behave as stewards furthers ambidexterity). The gaps pertained to all the causal connections between innovation inputs (e.g., R&D expenses), innovation activities, and innovation outputs (e.g., new products). Among the very few stylized facts in this space is that there is a weak consensus that family firms have a lower level of R&D expenditures, but obviously this does not imply that family firms are necessarily less innovative.

The relative lack of overlap between innovation research and research on family firms is puzzling because of the importance of the phenomena that these research fields address and also because arguments can easily be constructed for family firms being outliers in terms of innovation performance (i.e., family firms are significantly less *or* significantly more innovative than non-family firms). For example, one informal argument asserts that family firms are in a stronger position to adopt a long-term orientation in investment decisions, which benefits innovation.[18] The argument is that family ownership supports a long-term orientation for reasons of preserving the value of reputational capital[19] and that this is conducive to innovation. This stylized "fact" is, however, almost always stated without systematic empirical support beyond quotes from prominent family firm leaders.

Given this situation, it is, of course, tempting to call for more evidence. However, increasing the number of empirical studies may not be sufficient to resolve the issue if the research questions are not well defined or the causal relationship is not identified. For instance, a simple study of the mean differences in innovation outcomes between family and non-family firms may fail to discover variables that drive both ownership structure and innovation outcomes. If family firms are indeed more innovative, is that because of the effect of the family firm *per se*, or is it innovation that drives the choice of ownership, or are there underlying variables that drive both innovation policy and the choice of ownership structure?

While we cannot resolve such complex identification issues in this article, we do suggest that a possible reason for the conflicting findings in the research literature may stem from an omitted variable bias. Specifically, a possible reason for

the conflicting findings in the literature may stem from a failure to fully recognize the variety of those resources that underlie the innovation performance of family firms and how they may drive such performance. Family firms may control resources that cannot be owned and controlled by non-family firms (e.g., family values). It may be that by virtue of family ownership, governance, and management, family firms may have the same kind of resources that non-family firms control, but the resources family firms control are superior to those controlled by non-family firms. Building competitive edge and superior innovation from such "family assets"[20] may involve leveraging the name and the legacy of the family firm; developing, retaining, and exploiting powerful business, family, and political networks; and, not least, strong cultural, family, or personal values that are embodied in the firm and the family.[21]

However, what is not well understood are the theoretical mechanisms that link family assets to value creation and appropriation in the context of innovating products, processes, organization, and management practices—as well as entire business models.[22] To be sure, some of these mechanisms have been identified in the extant family business literature.[23] However, most discussions are rather "partial" in the sense that they focus on a single possible driver of superior inputs to or outputs from the innovation process, such as family reputation.[24] Moreover, many contributions do not really identify the generative mechanism linking family assets and innovation.

Table 1 highlights four important family assets, discusses how these family assets can drive innovation processes, provides example of how corporate and family governance can leverage and protect the link between family asset and innovation, and provides examples of family firms and industries.

Family Assets

Following Bennedsen and Fan[25] and Bennedsen et al.,[26] we argue that what makes family firms different is their ability to base their business and innovation strategies on specific kinds of resources, namely, "family assets" that are peculiar to family firms.[27] In turn, family assets interact synergistically with other resources (that are not peculiar to family firms) in terms of impact on innovations.

Family assets are resources with VRI characteristics (i.e., they give rise to sustained appropriable rents because they are valuable, rare, and costly to imitate and substitute). As such they often drive the superior competitive performance of a family firm.[28] In addition to having VRI characteristics, family assets are the subset of the resources of a family firm that represent the unique relation-specific contribution from the family to rest of the firm.[29] Because of such specificity, removing them from the coalition of resources may result in a permanent drop in the value that the remaining coalition is capable of creating.[30]

Miller and Le Breton-Miller[31] think of family assets in terms of what they call the "4 Cs"—continuity, community, connections, and command. Continuity is provided by the history of the family in terms of its involvement in the business, the high degree of specialization that typically characterizes family firms, and the ability to take a long view.[32] Community is emphasized by the team aspects of the enterprise and on strong professional values. Connections are represented by

TABLE 1. Family Assets and Innovation

Family Assets	Mechanism Linking Family Assets and Innovation	Examples of Family and Corporate Governance that Institutionalize the Mechanism	Firm and Industry Examples
▪ Entrepreneurial spirit internalized by a family	▪ General alertness to innovative opportunities and willingness to implement these ▪ Entrepreneurship is part of the family identity	▪ In-house incubation system ▪ In-house private equity fund ▪ Educational system within the family ▪ Incentives and rewards ▪ Entrepreneurial competitions and prices ▪ Role models and mentors within the family	▪ The Mulliez family (France) and its 20+ retail brands including Auchan, Decathlon, Leroy-Merlin a.o. ▪ Wendel family (France) ▪ Jenssen family (Solvay group Belgiun) ▪ Wang Yung-Chien family (Formosa Plastic Group Taiwan)
▪ Family identity, history, and legacy incorporated in brand and product reputation	▪ Major need for expansion of products and markets induce new ways of leveraging key family assets	▪ Ownership design (going public, business group formation, and investment from third parties)	▪ Value chain innovations and the business group model in the luxury goods industry ▪ Hermés ▪ LVMH group
▪ Loyalty among family members to the company	▪ Concentration of family members' attention and energy on removing roadblocks to company development by innovating	▪ Family investment fund ▪ Inviting young family members to test innovative ideas within the family firm ▪ Using external consultants and governance structures to promote the survival of the business as an independent firm	▪ Van Eeghen and its "functional adaptability" ▪ Monzini (Music, Italy) ▪ Thiercelin (Spices, France) ▪ Marriage Freres (Tea, France) ▪ LEGO (Denmark)
▪ Family network ties	▪ Ties serve as conduits through which knowledge from external knowledge sources may be transmitted into the firm's innovation process ▪ Absorption of external knowledge is supported by loyalty and trust relations ▪ Political and regulative networks may provide easy access to funding of and exclusive licenses to exploit the economic rent from innovation activities	▪ Encourage young family members to careers in research, politics, or media ▪ Sponsor events and competitions with universities and other research institutions	▪ Chaebols in South Korea ▪ Siemens (Germany) ▪ Heraeus (Germany) ▪ Toyota (Japan)

the stable network relations to the family firm's multiple stakeholders, underpinned by trust and reputation effects. Command refers to the higher capacity to make the quick and decisive decisions that are supported by kinship ties, shared values, and the low cost of information, coordination, and agency—particularly when the family shares management responsibilities.

Common examples of family assets are the legacy of the family business as encapsulated in the family name and reputation, powerful business and regulative networks, and strong values that guide the governance of family and business.[33] Family brand name recognition and networks provide opportunities that may not exist for non-family firms, while strong family values provide motivation and often also imply constraints on what the firm can and cannot do, for example, in terms of diversifying strategic moves.

Like many of the strategically relevant (i.e., potentially rent-generating) resources analyzed by resource-based scholars,[34] family assets are socially complex and emerge in path-dependent historical processes, sometimes stretching centuries. They are likely to be subject to asset mass efficiencies and time compression diseconomies.[35] These characteristics typically imply that would-be imitators face high costs of imitating the relevant assets and therefore contribute to sustaining the competitive advantages that family assets may yield. This feature is reinforced by family assets being even more strongly linked to a well-defined group of individuals (i.e., a family) than other socially complex, path-dependent resources. The glue that binds family and resources together is feelings of kinship and other emotions as well as direct ownership stakes, all of which commit family members to the joint enterprise. Such family ties produce feelings of a shared destiny that make the company's criteria-function clear and well understood, and that help the key decision makers internalize it. Family ties also have strong productivity implications and keep agency and coordination costs at bay. Thus, family assets can interact in a synergistic manner with non-family resources.[36] For example, family values boost employee motivation, and family reputation helps in building external networks and instills loyalty in those networks.

As such, family assets contribute strongly to the value creation and appropriation of family firms, give such firms a competitive advantage relative to non-family firms, and protect rent streams over time. For example, the greater loyalty among stakeholders that family firms are able to mobilize is not only a distinct source of value creation, but also a source of value appropriation, at least to the extent that loyalty among stakeholders translates into reluctance to drive too hard a bargain with the family firm.

Family Assets and Innovation: Examples

While the potential for realizing a family advantage in financial terms is now reasonably well understood in the extant family business literature,[37] little research exists on how family assets influence innovation. Consider the following examples of how family assets have driven innovation, specifically innovation of organizational forms and management practices.

The Mulliez family is the owner of one of the largest retail empires in the world.[38] In 1903, Louis Mulliez-Lestienne established a small business in textile manufacturing in the north of France. Over many decades, he built a brand named

Phildar, which principally sold knitting and sewing supply products. A staunch Catholic, he and his wife Marguerite had eleven children. The family founded their business empire on a mix of strong internalized values and family assets, including catholic values, a strong work ethic, family ties, an entrepreneurial spirit, deep knowledge about the retail sector, and an ever-growing network. These assets were transferred from generation to generation in a family that today has almost 800 members, more than 550 of which are owners of the privately held cluster of firms controlled by the Mulliez clan. In fact, a closely monitored family agreement allows family members to trade shares among themselves, with sales to nonrelatives being barred.[39]

The key family assets of a strongly networked presence in the industry and the advantages of keeping under the public radar[40] have channeled family energies towards ongoing entrepreneurship within the retail sector. In particular, the family developed an innovative incubator-like business model, in which new businesses would be developed in-house with full family control and ownership. Subsequently, these ventures would be tested in the marketplace and developed into franchise-based retail brands. Typically, they would be grown first in Northern France, and subsequently they would be disseminated to the rest of France before eventually going global.

Gerard Mulliez founded Auchan, "France's Walmart," in 1961 and grew it into one of the largest supermarket chains in the world. Other family members followed and today the family owns more than twenty retail brands, such as Décathlon for sports and leisure, fast food outlets Flunch and Pizza Pai, do-it-yourself home improvements at Leroy Merlin, Boulanger's home electrical products, rentals at Kiloutou, and smaller discount stores such as Simply Market. Groupe Auchan SA is today one of the world's main distribution groups, with a presence in 12 countries and 269,000 employees distributed across 639 hypermarkets and 2,412 supermarkets.

The specific Mulliez organizational innovation of the retail incubator was strongly facilitated by the family assets and how these had been shaped by over time. The foundation of the business's activities are the strong family values, transferred from generation to generation, that culminated in an explicitly religious family pact initiated in the early 1960s. The ever-increasing number of family members forced the family to innovate both in organization—through new ownership, finance, and educational structures—and in business strategies by inspiring new family members to engage in new business proposals within the overall family interest.

As another example of organizational innovation undertaken by family firms, consider the luxury industry, which historically has been dominated by family names such as Vuitton, Hermes, Gucci, Chanel, Hennessy, Moet et Chandon, Cartier, Fendi, and many more.[41] Luxury goods firms usually started as small craftsman workshops that served high niche European clientele. Production was at a small scale and based on manual processes, usually involving the special know-how of the founder that was transferred in an apprentice-like manner to the next generation in the family. The small-scale production and gradual expansion of these businesses enabled organic growth. On the other hand, the high-margin luxury business resulted in accumulation of significant wealth within the families in the industry. These two factors eliminated the need for external financing and thus helped keep

control within the family. The continuity of business involvement of the family through generations created a very strong base of family assets, such as name, identity, and values.

The luxury industry has gone through major transformations that have prompted innovations in business organization and ownership arrangements on the part of family firms. Since the Second World War, the rise of the U.S. and Japan, later on the Middle East, and most recently mainland China as the main luxury markets has required a more global footprint for luxury businesses. Second, using the brand strategically by introducing more products came to be considered an increasingly critical success factor. Third, the pace of expansion has accelerated. Addressing these challenges requires strategies that are supported by large-scale investments and often by changes in value chain organization.

In 1977, Henry Racamier took over the management of his mother-in-law's family firm, Louis Vuitton. Like many luxury firms, Louis Vuitton had gone through hard times in the 1960s and 1970s, when demand for traditional luxury items had fallen dramatically as the baby boomers came of age and preferences changed away from anything that smacked of "bourgeois." To earn sufficient cash flows to keep themselves in operation, many family-owned luxury companies resorted to short-term solutions. While controlling design (though not always production) they delegated their interests in merchandizing to specialists in those fields, often merely for a license fee. Racamier noticed that profit was generated in the retailers' end of the value chain. Rather than trying to appropriate more value from the retail end through bargain tactics and contractual arrangements, he embarked on a process of vertical integration, opening the firm's own retail stores and cutting out middle men. He was also the first to open family brand stores in Asia (Tokyo) and he managed to make a significant increase in sales and profit margins. The Louis Vuitton innovation led to a change in the whole industry organization as many old family companies such as Bulgari, TAG Heuer, and Hermès copied his organizational innovation.

To finance similar forward-integration strategies, luxury firms faced an increasing need for capital, which prompted many luxury companies to go public, typically floating around 30 percent of their shares.

Racamier's vertical integration strategy triggered further organizational changes in the luxury industry. The next organizational innovation was what can be called the "luxury business group model," such as Johan Rupert's creation of a group of brands around the Cartier brand. This particular business model exploits economies of scope, but not at the brand level. The idea is that not being part of a group of other luxury brands allows brands to develop *operational* synergies. In the luxury industry, strategic synergies between brands do not suit the business model, as the strength of each brand is its unique way of operation and its unique values and history. Nevertheless, for all the "behind the scene" jobs it is a very powerful asset to be part of a group because smaller brands might not be capable of raising the capital and realizing the scale that justifies owning such things as production, purchasing, as logistics assets. However, sharing in these assets through a luxury business group model allows for realizing economies of scope across distinct brands. A particular example of such economies is the development

of a global strategy at the level of a group, such as a bundle of name brands. For the group to effectively develop each of the brands in the bundles, it does not make sense if these brands are in direct competition against each other.

Overall, the luxury industry is a striking example of a family-dominated industry where dramatic changes in demand and supply over the last decades have forced many families to choose between innovation (in ownership and organization) and exit. Those who stayed in business as independent family firms typically developed new ownership and organization structures, changes in marketing strategies, and changes in sales structures. The luxury industry is interesting because family assets such as legacy, name, and history provide the family firm organization with a strong competitive advantage. However, at the same time innovation was triggered by market roadblocks that challenged the old business model and gave rise to new business opportunities for those who understood how to cater to new customers, particularly in emerging market economies.

Why Family Assets May Drive Innovation

Family assets hold the family and firm together. They are fungible inside the firm, but usually cannot be transferred across the boundaries of the family firm.[42] Family assets also serve as the driver of the innovation trajectory. Highly innovative German industrial firms such as Boehringer Ingelheim, C. Thywissen, Heraeus, or Siemens provide indications of just how powerful family firms can be with regard to innovation.

Innovation Capabilities and Opportunities in Family Firms

Family assets provide family firms with an innovative edge over non-family firms for several reasons. They provide the firm with greater innovation capabilities that non-family firms and innovation opportunities that are quite different from those of non-family firms. Family name, legacy, and values confer an advantage for family firms in labor markets. Highly productive, innovative, and creative prospective employees often select into firms with a family-based innovation legacy. Examples of this are the German metal company Heraeus, which is seen as highly attractive among top engineering and natural science graduates, and the continuous hiring of creative product developers in the world's second-largest toy company, Lego.

The Mulliez family firm illustrates how the challenge of an ever-growing number of family members combined with strong family assets induced organizational and business innovation. The Mulliez example, as well as the examples of the science-based German family firms (e.g., Siemens), point to a family resource that is particularly important in an innovation context, namely, the network advantages that family firm may enjoy *vis-à-vis* non-family firms. Family network ties serve as conduits through which knowledge from external sources (such as customers, suppliers, and universities) may be transmitted into the family firm's innovation process. This provides access to those "weak tie" knowledge nodes that recent network research has revealed to be essential to innovation performance.[43]

Non-family firms can also create external networks that are useful in their innovation process.[44] However, what gives family firms an edge is that they can

more easily combine network contacts with reputation and trust-based family assets.[45] Thus, family network contacts, passed from generation to generation, are particularly useful for handling transactions that involve knowledge. Such transactions are particularly likely to be fraught with problems of asymmetric information and attendant incentive problems. However, family firms have built up a reputation for honest interaction because they have more at stake in their family-based networks.[46] This suggests that family firms handle the incentive and motivational problems inherent in knowledge networks at lower costs than non-family firms.

Roadblocks Prompting Innovation

A second reason why family firms are strong innovators is that families often are more loyal to their company. Hence, if they are less likely to sell or exit their business, this means that they are often forced to innovate as a response to market or institutional roadblocks. The family factor acts as a focusing device that concentrates managerial attention on removing or overcoming the roadblocks rather than exiting a business to avoid them.

To illustrate, the urge to keep the company alive and preserve the family legacy has many times forced dramatic business innovation in Dutch trading company Van Eeghen. One example stems from the late 18th century, when institutional developments in Western Europe began to affect the trading companies. Continental Europe became dominated first by the various spin-offs of the French Revolution, notably the military campaigns of and rule by Napoleon. The Continental System instituted by Napoleon paralyzed trade relations with the English. The van Eeghen family was forced to re-direct trade and used this opportunity to develop trade and landownership in North America.

Van Eeghen refers to its ability to innovate new business activities as "Functional Adaptability." The most recent example is a new operating company founded in in 1998 that focused on nutritional health and food fortifying ingredients. Until then, van Eeghen had actively traded spices, botanical herbs, and dehydrated vegetables worldwide. As these products increasingly were turning into commodities with high risk and disproportionately low margins, they lost their niche character. Van Eeghen had already abandoned the commodity markets of coffee, cocoa, hides, and tobacco for the same reason. Thus, the company was yet again looking for products and markets with different characteristics that could be a future niche area. They discovered a trend first started in Japan of nutrition and pharmaceutical products merging into "nutraceuticals." Van Eeghen has managed to build a strong position in this novel market.

Innovation and Motivation

A third reason why family firms may have an edge turns on motivation. Increasingly, behavioral economists and social psychologists stress that work motivation is highly context dependent. There is substantial evidence that humans seem to be hardwired with a specific kind of motivation that is activated in cooperative situations and which helps us to coordinate efforts, develop mental representations of task interconnectedness in teams, and otherwise supply intelligent efforts in

complex situations such as innovation.[47] However, this motivation decays over time unless supporting arrangements exist. A strong family orientation inspires collective motivation,[48] which supports the knowledge sharing and heedful interrelating that have been found to foster innovation. It is easier to build a shared destiny and sense of purpose among kin than among individuals that are not related (note how non-family firms often seek to build such motivation by using family metaphors).

How Family Assets May Become Liabilities for Innovation

The very same family assets that are supportive of innovation during the development of the family firm can eventually become liabilities to continuous innovation.[49]

A number of mechanisms drive the transformation of family assets into family liabilities. The first is akin to the familiar exploitation-exploration trade-off.[50] A family firm's network contacts are a source of access to external knowledge of use in the innovation, and these assets feed on explorative activities. However, over time such networks may be less conducive to innovation, as networks transform from being relatively open networks with weak ties into small, closely knit networks characterized by strong ties.[51] While the former networks are conducive to innovation, the latter are less so, because knowledge redundancy increases as networks become tighter and closer. Thus, the changing nature of the network drives a change from exploration towards exploitation, and thus a reduction in new opportunities for innovation. In stable, slowly moving industries this may not pose a major problem. However, if change is frequent, firms need to renew themselves, and ties that are too strong can then pose a problem.

Another example of family assets becoming liabilities involves the loyalty among stakeholders that family firms often succeed in cultivating.[52] However, the firm may become *too* loyal to its stakeholders, such as towards workers and the local community where the company was founded. As part of its large-scale turnaround after 2004, Lego tried hard to keep a large part of its production facilities in Billund, Denmark, where it was founded, while other companies outsourced in large scale to cheap labor countries and gained immediate cost savings.[53]

Similarly, family firms are also loyal to partners on the supply or investment side. When this increases cost, it can take resources away from innovation. Often, they keep partnerships that include inferior products or inferior organization. An early example was the famous merger between the two Quaker chocolate companies Fry and Cadbury in 1918. Fry was suffering due to a lack of innovation and understanding of market changes and Cadbury was growing rapidly based on strong innovation in products and technology. However, the merger took place because both families were Quakers and British; and as Quakers, the Cadbury family felt loyal to the Fry family even if they have been fierce competitors for half a century. The merger harmed the expansion of Cadbury in the years following because of the poor situation that the Fry company was in.

While a family where members trust each other can be a strong asset in terms of reducing internal transaction and agency costs[54] and maintaining a

coherent management approach across the firm, this can also lead the family to be unwilling to empower non-family members. Family firms may also resist innovation in organizational structures due to the family not wanting to give up control. Foss, Laursen, and Pedersen[55] show that firms that wish to successfully engage in open innovation need to deploy a set of complementary organizational practices. Specifically, a combination of a high degree of delegation (empowerment), effective horizontal communication channels, and incentives that reward knowledge sharing are particularly conducive to success in absorbing external knowledge and deploying it in the context of innovation. However, such organizational practices also amount to a break with the traditional hierarchical model and a strong move to "flat" hierarchies where the family may have less of a say. Family firms may therefore be less prone to adopt the hierarchical structures that best support engaging in open innovation.

The unwillingness to let others into the "circles of power" may also be a problem for a more subtle reason. From a basic agency theory perspective, innovation represents a management challenge because it is particularly costly to monitor inputs (it is hard to run innovative activities with standard operating procedures) and because it is difficult to make employees accept having their compensation linked to outputs. The reason is that risk-averse employees will be reluctant to accept having their salary depend on highly uncertain innovation outcomes. This means that incentives will be weak for those individuals engaged in the innovation process.[56] To compensate for the use of less-powerful incentives to induce efforts in the innovation process, firms will have to rely more on other ways of motivating and controlling employee behaviors. In principle, additional monitoring and more narrow job designs could accomplish this,[57] but in actuality these are likely to be harmful to innovation. Alternatively, firms can make use of the blunt incentive instrument of "access" to critical resources (e.g., access to the client list, important suppliers, and network contacts). Access provides employees with bargaining power, which they can then deploy to garner a higher portion of the value created in the firm. Their incentives to invest in relation-specific assets (e.g., increase their engagement with external knowledge sources, build relations to marketing if they are in R&D, and take additional training) are correspondingly strengthened.[58]

In family firms this mechanism may be difficult to use if the family is unwilling to give up control and provide access to non-family members. In such cases, they may not (to a sufficient extent) let non-family employees share in decision-making responsibilities and take independent initiative regarding customers, suppliers, and so on. The incentives of non-family members to provide essential services to the firm are weakened as a result. This problem is further exacerbated by the disinclination of family firms to offer bonuses or to formally appraise performance.[59]

Institutionalizing Innovation in the Family

What can family firms do to keep family assets from becoming liabilities in the innovation process? One highly effective way is to institutionalize innovation

within the family and the firm. This can be done through family and corporate governance and through incentivizing key individuals in the innovation process.

Consider again the case of the Mulliez Family. The family invented a new business organization that both sustained the family-asset-based business strategy and reduced the cost of roadblocks, not least arising from the rapidly expanding family size. This new model institutionalized innovation through corporate governance, family-based governance, and through educating new generations to be innovators within the complex Mulliez family system. First, to finance the new business ventures, the Mulliez family restructured ownership and created a private equity company within the business group. The fund received cash from the operating companies, which have traditionally paid relatively low dividends to the individual family members. Second, the family developed a dual governance structure that allocated significant power to a family board, which is superior to the boards of the operating companies and which has created a clear and transparent guideline for future generations' involvement in the Mulliez businesses. Third, a family pact was defined that outlines the values that bind family members together. Fourth, the family developed a formalized educational system within the family that all young family members have to enroll in to be able to propose new entrepreneurial ventures or join existing companies above a certain level. Fifth, as a principle, each family member hold shares in the holding company and not in the operating companies. This secures that all family members have the same portfolio in their shareholding even if some have more shares than others. Incentives are given, because business success is rewarded with more shares in the holding company.

These innovations in corporate and family governance within the Mulliez family structure serve several objectives. First, they make it possible for the family to expand its business empire without needing external capital. Second, they educate the next generation and transfer family assets from one generation to the next. Third, they align incentives among family members while still giving incentives for entrepreneurial family members to start new businesses or innovate existing businesses structures.

The private investment fund within the family business is a powerful way of institutionalizing innovation. It is often the case that young family members are reluctant to join the family business. The reasons are that there may be little scope to prove oneself and it is too safe a choice that does not provide prestige among peers. The choice is often to go out and become entrepreneurs on their own. However, by raising funds inside the family firm, the family can internalize the next generation´s entrepreneurial drive, resulting in increased innovation within the family firms. This has been a driver of the global success of the Mulliez family. However, it also happens on smaller scale. The 260-year-old Italian musical instrument company Monzino has started an audio equipment subsidiary, and the 200-year-old French spice company Thiercelin has recently started a software company, based on the notion of acting as internal venture capitalists for younger family members.

Innovation can also be institutionalized through family governance. Old entrepreneurial families are sometimes able to transfer the entrepreneurial spirit

through generations by family activities that foster and reward new innovators. The 380-year-old Wendel family has around 1,000 family members that together own 38% of the publicly traded private investment company Wendel Investissement. The family used to own and operate the biggest steel company in Europe. Today, there are no family members active in management of the investment company, but the family assets of entrepreneurial and innovation spirit, family name and history, and a very powerful family and business network are maintained through active family governance.

Family governance can help clarify the career path of younger family members' involvement in the family business. Through communication, family charters, and clear family structures, families can identify potential innovators in the next generation and be able to help them develop within the family firm. This increases the likelihood that potential innovators will find it attractive to stay in the family business and also highlight necessary organizational changes for the family firm to absorb these family members.

Concluding Discussion

Family firms, involving some mix of family ownership and de facto family control, are an extremely common form of business in most countries and regions. To illustrate, in Europe more than half of all businesses are family controlled.[60] Some of these are very large players (e.g., Volkswagen, controlled by the Piëch family, is the world's second largest car producer). Outside the U.S., Europe, and China, family ownership is the dominant ownership structure even among the biggest firms. In a Europe that is plagued by sluggish productivity growth and high unemployment levels, understanding the drivers of innovation in family firms truly matters because of the importance of innovation for productivity and growth.

In this article, we have provided a framework for understanding the key drivers of innovation in family firms and the dynamics of these drivers. Innovative family firms are driven by the unique contribution families deliver to their firm. This includes strong family, business, and regulative networks, family values, and a heritage that provides a legacy for the firm. These assets provide innovative opportunities that are special to family firms. For example, family values can focus managerial attention on removing roadblocks (such as decreasing demand for the firm's products) by innovative efforts,[61] rather than by opting out of markets and businesses. Over time, however, family assets can turn into liabilities for innovation.

Chrisman, Chua, Massis, Frattini, and Wright[62] draw attention to the possibility that the ability and willingness to engage in entrepreneurial and innovative activities may differ in family firms as compared to non-family firms.[63] We agree, but argue that *opportunity*, the third component of the Motivation-Ability-Opportunity triad,[64] be added to the equation. Thus, family firms derive particular benefits in the context of innovation from their often family-based networks that allow them to tap into important external knowledge.

Aggregated across a population of family firms, the dynamic we have described may underlie the conflicting findings in the empirical literature on innovation in

family firms.[65] Some firms are able to use the family assets to drive strong innovation performance, whereas others stay loyal to traditional product structures, existing business networks, or stakeholders (such as labor or customers) to such a degree that over time this harms innovation. Specific resources of family firms may change over time so that they may increasingly block innovation, but a way to keep this dynamic at bay is to institutionalize innovation in the family.

Notes

1. These are firms that are in the top in their industry globally, but have relatively low revenues and a low level of public awareness. H. Simon, *Hidden Champions of the 21st Century: Success Strategies of Unknown World Market Leaders* (London: Springer, 2009).
2. J.B.L. Craig and K. Moores, "A 10-year Longitudinal Investigation of Strategy, Systems, and Environment on Innovation in Family Firms," *Family Business Review*, 19/1 (March 2006): 1-10. Family firms have very different characteristics in terms of the extent and history of family involvement, and it is likely that such heterogeneity influences innovation outcomes. However, for reasons of space we suppress this heterogeneity in this study.
3. For example, see C.E. Aronoff, "Megatrends in Family Business," *Family Business Review*, 11/3 (September 1998): 181-186; R.A. Litz and R.F. Kleysen, "Your Old Mean Shall Dream Dreams, Your Young Men Shall See Visions: Toward a Theory of Family Firm Innovation with Help from the Brubeck Family," *Family Business Review*, 14/4 (December 2001): 335-352; A. De Massis, F. Chirico, J. Kotlar, and L. Naldi, "The Temporal Evolution of Proactiveness in Family Firms: The Horizontal S-Curve Hypothesis," *Family Business Review* 27/1 (March 2014): 35-50.
4. A. De Massis, F. Frattini, and U. Lichtenthaler, "Research on Technological Innovation in Family Firms: Present Debates and Future Directions," *Family Business Review*, 26/1 (March 2013): 10-31.
5. D. Czarnitzki and K. Kraft, "Capital Control, Debt Financing and Innovative Activity," *Journal of Economic Behavior and Organization*, 71/2 (August 2009): 372-383.
6. E.g., J. Llach and M. Nordquist, "Innovation in Family and Non-Family Businesses: A Resource Perspective," *International Journal of Entrepreneurial Venturing*, 2/3-4 (2010): 381-399.
7. M. Bennedsen and J.P.H. Fan, *The Family Business Map: Assets and Roadblocks in Long Term Planning* (Basingstoke: Palgrave MacMillian, 2014).
8. In the sense of the resource-based view, see J.B. Barney, "Firm Resources and Sustained Competitive Advantage," *Journal of Management,* 17/1 (March 1991): 99-120; I. Dierickx and K. Cool, "Asset Stock Accumulation and the Sustainability of Competitive Advantage," *Management Science*, 35/12 (December 1989): 1504-1511.
9. This is not to say that these resources constitute resource categories that are unique to family firms. Thus, non-family firms of course also have network ties, reputation, etc. However, family firms may add particular characteristics to these resources.
10. B. Holmström, "Agency Costs and Innovation," *Journal of Economic Behavior and Organization*, 12/3 (December 1989): 305-327; D.M. Kreps, "Corporate Culture and Economic Theory," in J.E. Alt and K. Shepsle, *Perspectives on Political Economy* (Cambridge: Cambridge University Press 1990).
11. R.S. Burt, *Structural Holes: The Social Structure of Competition* (Boston, MA: Harvard University Press 1992); A. Zaheer and G.G. Bell, "Benefiting from Network Position: Firm Capabilities, Structural Holes, and Performance," *Strategic Management Journal*, 26/9 (September 2005): 809-825.
12. De Massis, Frattini, and Lichtenthaler, op. cit.
13. D. Leonard-Barton, "Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development," *Strategic Management Journal*, 13 (Summer 1992): 111-125.
14. Cf. also E. Autio and M. Mustakallio, "Family Firm Internationalization: A Model of Family Firm Generational Succession and Internationalization Strategic Postures," paper presented at the Theories of the Family Enterprise Conference, University of Pennsylvania, Philadelphia, 2003; S.A. Zahra, J.C. Hayton, and C. Salvato, "Entrepreneurship in Family vs. Non-Family Firms: A Resource-Based Analysis of the Effect of Organizational Culture," *Entrepreneurship Theory and Practice*, 28/4 (Summer 2004): 363-381; F. Chirico, M. Nordqvist, G. Colombo, and E. Mollona, "Simulating Dynamic Capabilities and Value Creation in Family Firms: Is Paternalism an 'Asset'

or a 'Liability'?" *Family Business Review*, 25/3 (September 2012): 318-338; F. Chirico and M. Bau, "Is the Family an 'Asset' or 'Liability' for Firm Performance? The Moderating Role of Environmental Dynamism," *Journal of Small Business Management*, 52/2 (April 2014): 210-225.

15. Bennedsen and Fang, op. cit.
16. De Massis, Frattini and Lichtenthaler, op. cit.
17. Of course, the number of papers on, for example, ownership concentration, internal agency problems, and much else in family that has a potential bearing on the issue is much larger. Cf. A. De Massis, F. Frattini, E. Pizzurno, and L. Cassia, "Product Innovation in Family versus Nonfamily firms: An Exploratory Analysis," *Journal of Small Business Management*, 53/1 (January 2015): 1-36.
18. I. Le Breton-Miller and D. Miller, "Why Do Some Family Businesses Out-Compete? Governance, Long-Term Orientations, and Sustainable Capability," *Entrepreneurship*: *Theory and Practice*, 30/6 (November 2006): 731-746
19. Kreps, op. cit.
20. In the terminology of Bennedsen and Fang, op. cit.; Morten Bennedsen, Joseph P.H. Fang, Ming Jian, and Yin-Hua Yeh, "The Family Business Map: Framework, Selective Survey, and Evidence from Chinese Family Firm Succession," *Journal of Corporate Finance* (forthcoming).
21. D. Miller and I. Le Breton-Miller, *Managing for the Long Run: Lessons in Competitive Advantage from Great Family Businesses* (Boston, MA: Harvard Business School Press, 2005); D.L. Deephouse and P. Jaskiewicz, "Do Family Firms Have Better Reputations Than Non-Family Firms? An Integration of Socio-Emotional Wealth and Social Identity Theories," *Journal of Management Studies*, 50/3 (May 2013): 337-360.
22. By "business models" we mean the firms choices of value proposition, targeted segments, access to complementary assets, value chain organization, and revenue model and how it links these business model elements.
23. E.g., De Massis, Frattini, Pizzurno, and Cassia, op. cit.
24. E.g., Deephouse and Jaskiewicz, op. cit.
25. Bennedsen and Fang, op. cit.
26. Bennedsen, Fang, Jian, and Yeh, op. cit.
27. See also T.G. Habbershon and M.L. Williams, "A Resource-Based Framework for Assessing the Strategic Advantages of Family Firms," *Family Business Review*, 12/1 (March 1999): 1-15; Zahra, Hayton, and Salvato, op. cit.; Miller and Le Breton-Miller, op. cit.
28. Of course, family firms need not possess family assets and the competitive advantages of a family firm may be caused by other resources than family assets.
29. Bennedsen and Fang, op. cit.
30. S.A. Lippman and R.P. Rumelt, "A Bargaining Perspective on Resource Advantage," *Strategic Management Journal*, 24/11 (November 2003): 1069-108
31. Miller and Le Breton-Miller, op. cit.
32. Cf also C. Mayer, *Firm Commitment: How the Corporation is Failing Us and How to Restore Trust in It* (Oxford: Oxford University Press, 2013).
33. E.g., Deephouse and Jaskiewicz, op. cit.; Chirico and Blau, op. cit.
34. E.g., Barney, op. cit.
35. Dierickx and Cool, op. cit.
36. T.G. Habbershon, M.L. Williams, and I.C. McMillan, "A Unified Systems Perspective of Family Firm Performance," *Journal of Business Venturing*, 18/4 (July 2003): 451-465.
37. Miller and Le Breton-Miller, op. cit.; Bennedsen and Fang, op. cit.
38. B. Boussemart, *La richesse des Mulliez. L'exploitation du travail dans un groupe familial* (Auchy-lez-Orchy: Editions Estaimpuis 2008).
39. Ibid.
40. "The clan is notoriously tightfisted. 'You never see them in St. Tropez or buying expensive paintings,' says Bertrand Gobin, an author who writes a blog tracking the family. Gobin, who in 2004 was granted a rare interview with Gérard Mulliez, recalls that the patriarch's office was unheated and furnished with a cheap desk, a few chairs, and a table with a sheet thrown over it as a dust cover. The interview lasted five hours, Gobin says, without Mulliez offering so much as a glass of water or even a bathroom break." C. Matlack, "Gerard Mulliez' Auchan: France's Wal-Mart Goes Global," 2009, <www.businessweek.com/magazine/content/09_51/b4160064956057.htm>, accessed on June 27, 2014.
41. L. Corcano, C.G. Corbetta, and M. Alessandro, "Why Luxury Firms Are Often Family Firms? Family Identity, Symbolic Capital and Value Creation in Luxury-Related Industries," *Universia Business Review*, 2011, accessed at <http://ubr.universia.net/pdfs_web/3203.pdf>.
42. Dierickx and Cool, op. cit.

43. M. Reinholt, T. Pedersen, and N.J. Foss, "Why a Central Network Position Isn't Enough: the Moderating Roles of Motivation and Ability for Knowledge Sharing in Employee Networks," *Academy of Management Journal*, 54/6 (December 2011): 1277-1297.
44. N.J. Foss, K. Laursen, and T. Pedersen, "Linking Customer Interaction and Innovation: The Mediating Role of New Organizational Practices," *Organization Science*, 22/4 (July/August 2011): 980-999.
45. J. Kotlar, H. Fang, A. De Massis, F. Frattini, and M. Bianchi, "Technology Acquisition in Family and Nonfamily Firms: A Longitudinal Analysis of Spanish Manufacturing Firms," *Journal of Product Innovation Management*, 30/6 (November 2013): 1073-1088. Kotlar et al. find that, in their sample of Spanish manufacturing firms, family management and external technology acquisition are inversely related. However, they measure technology acquisition as formal R&D contracting. Even if family firms engage less in R&D contracting, they may still acquire more knowledge through external contacts—and even if they don't, they may still acquire higher-quality knowledge.
46. Kreps, op. cit.
47. S. Lindenberg and N.J. Foss, "Managing Joint Production Motivation: The Role of Goal-Framing and Governance Mechanisms," *Academy of Management Review*, 36/3 (July 2011): 500-525.
48. W. Schulze, M. Lubatkin, and R.N. Dino, "Toward a Theory of Agency and Altruism in Family Firms," *Journal of Business Venturing*, 18/4 (July 2003): 473-490.
49. C. Sundaramurthy, "Sustaining Trust within Family Businesses," *Family Business Review*, 21 (2008): 89-102.
50. As an anonymous reviewer pointed out, the interplay between exploration and exploitation is not always one of a tradeoff. E.g., A.K. Gupta, K.G. Smith and C.E. Shalley, "The Interplay between Exploration and Exploitation," *Academy of Management Journal*, 49/4 (August 2006): 693-706.
51. M. Granovetter, "The Strength of Weak Ties," *American Journal of Sociology*, 78/6 (May 1973): 1360-1380.
52. Miller and Le Breton-Miller, op. cit.
53. N.J. Foss, T. Pedersen, J. Pyndt, and M. Schultz, *Management Innovation* (Cambridge: Cambridge University Press, 2012).
54. E.g., Chinese family firms. Schulze, Lubakin, and Dino, op. cit.
55. Foss, Laursen, and Pedersen, op. cit.
56. Holmström, op. cit.
57. Holmström, op. cit.
58. R.G. Rajan and L. Zingales, "Power in a Theory of the Firm," *Quarterly Journal of Economics*, 113/2 (May 1998): 387-432.
59. N. Bloom and J. Van Reenen, "Measuring and Explaining Management Practices across Firms and Countries," *Quarterly Journal of Economics*, 122/4 (November 2007): 1341-1408; M. Bertrand and A. Schoar, "The Role of Family in Family Firms," *Journal of Economic Perspectives*, 20/2 (Spring 2006): 73-96.
60. M. Bennedsen and K.M. Nielsen, "Incentives and Entrenchment Effects in European Ownership," *Journal of Banking and Finance* 34/9 (September 2010): 2212-2229.
61. Ibid.
62. J.J. Chrisman, J.H. Chua, A. De Massis, F. Frattini, and M. Wright, "The Ability and Willingness Paradox in Family Firm Innovation," *Journal of Product Innovation Management*, 32/3 (May 2015): 310-318.
63. They specifically proffer that while family firms are likely to have higher ability than non-family firms to engage in innovation, they have lower motivation to do so.
64. R. Batra and M.L. Ray, "Situational Effects of Advertising Repetition: The Moderating Influence of Motivation, Ability and Opportunity to Respond," *Journal of Consumer Research*, 12/4 (March 1986): 432-445.
65. Cf. De Massis, Frattini, and Lichtenthaler, op. cit.

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