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FROM FINANCIAL GROWTH TO GENERATIVE GROWTH: A RENEWAL OF PRIVATE EQUITY

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Since its emergence, private equity has been used as a powerful tool to support economic growth, especially through financing start-up companies, whose difficulty in accessing investment—a so-called “equity gap”—was thought to be a major obstacle to innovation.¹ Nowadays, however, the nature of innovation processes has deeply changed, and start-ups are not the only firms upon which rests the imperative of inventing new products and services, as well as new knowledge and technologies. All mature companies, especially middle market ones, are indeed at the heart of a dilemma between making more of the same thing—notably through repeated acquisitions, operational scalability, or product extensions—at the risk of growing obsolete, and regularly renewing their activities through the development of (radically) new concepts. This chapter examines how the current private equity rationale tends to corner these companies into the first kind of “aggregative growth”, as it commonly mitigates risks in the short term. It highlights that what these companies lack the most is not equity: they lack investors who can support their regenerative strategies in the long run. Therefore, this chapter conceptualizes a new class of investment strategies that is emerging to support this latter kind of growth, which we coin as “generative growth”. Generative growth not only increases production and turnover, but generates innovative technologies, products, or services as well as organizations, methods, and competencies. Finally, this chapter discusses implications for lower-income economies and provides some policy recommendations on a way forward.

Investing in innovation—are start-ups the unique cornerstone?

The private equity industry emerged first in the United States of America (U.S.) after World War II and later spread to Europe and Asia. These three regions today account for more than 90% of private equity total assets. Private equity has become a major tool for providing capital to a wide range of businesses, from start-ups to mature or even declining firms. In 2019, private equity assets under management reached a record level of US\$4.11 trillion, among which there is still a rising stock of uncommitted capital.²

Ever since the emergence of the private equity industry, investing in innovation has been conflated with investing in start-ups. The assumption that boosting the start-up scene would increase countries’ growth and competitiveness started in the innovation powerhouse economy of the United States, followed by, among others, the European Union (EU), China, Brazil, Israel, Japan, and Chile. In this way, many economies have supported the rise of national venture capital industries through either public policies or by creating state investment vehicles. Developing countries are also following suit: in the past two years alone, Jordan, Morocco, and Senegal have all launched state-owned funds to boost start-up financing. In these and other lower-income countries, investing in start-ups has also become a cornerstone of public innovation policies.

Yet, start-ups are only one of the vehicles that facilitate firms’ innovation, and the nature of innovation processes has deeply changed over the past few decades. The contemporary innovation-intensive economy requires companies to have the capacity to repeat the development of potentially radical

innovations at every stage of their existence to create sustainable long-term value. To do so, enlarging the range of existing products and making them increasingly more efficient is not enough: firms also need to shape “the unknown”.³ In other words, current innovation management and design theory research insists on the crucial role of regeneration processes that do not only rely solely on the development of new profitable products but also on the extension of knowledge and exploration of unknown concepts. Mature companies are confronted with these challenges to the same extent as growing start-ups.

As an example, the French company Tefal gained international fame in 1961 after releasing an advertisement with Jackie Kennedy holding a non-stick pan in front of the cameras. The company has since undergone an incredible growth dynamic, especially from the 1980s to the 1990s, which is a prime example of generative growth in middle-market companies. Tefal not only expanded the non-adhesive property of Teflon—discovered accidentally a half-century ago at DuPont—to cooking devices that have since spread outside the kitchen; it also shaped a radically new iconic image of a convivial dinner. It accomplished this by reusing acquired knowledge to develop breakthrough competence fields for the company, such as surface treatment, plastics processes, and electronics, which resulted in new product lines for home automation and baby accessories that are very far from the initial core activities of this company.⁴ It is this expansion beyond the original use of Teflon that ensured its continued success.

Among mature firms, middle market ones are increasingly attracting the interest of policy leaders as they are a significant engine of growth, notably in the top European economies as well as in other high-income countries.⁵ These firms often play a leading role in regional ecosystems and certainly constitute a critical asset to national economies. Even though they are very limited in number in the above-mentioned countries, commonly comprising less than 2% of all firms, over the past few years, they have accounted for around a third of national GDP and employees and have shown strong resilience to economic crises. However, many middle-market firms are also niche market leaders that face the double bind of preserving their heritage while innovating to remain at the cutting edge of their markets. Hence they need to constantly renew their activities and develop sustained innovation processes to reach what we call generative growth paths—that is, not only growth in revenue or the number of employees but also in the variety of products and originality of concepts.

Because of this challenge, investors have a crucial role to play in sustaining the innovative capabilities of mature firms, which corresponds to the targets of buyout asset classes and, to a lesser extent, of growth capital. However, buyout investors, while managing more than twice the assets of venture capital, often grant only scant attention to firms’ innovation strategies beyond aggregate contributions to financial growth.

From “buy-strip-flip” to “smart money”: historical changes in buyout investment strategies and limits to sustaining generative growth

When buyout deals first boomed in the 1980s, investors started using a technique called “buy-strip-flip” that maximized quick returns on investment by dismantling the firm’s long-term capacity to prosper. In a short period of time, investors would first go into debt to buy a target, then improve its short-term financial situation by slashing costs, cutting off non-productive assets, or dismantling conglomerates into smaller firms while extracting massive dividends. Lastly, they would sell the restructured company at a higher price to secondhand or public investors.

While financial leverage remains a widely-used tool, its contribution to private equity returns has shrunk. The focus switched from financial engineering to operational and governance engineering; investors now seek growth opportunities rather than only cost reduction. For the past decade, digitalization, internationalization, and buy-and-build have become popular growth strategies for investors to meet high performance. Buy-and-build aims at building value through an investment in a platform company followed by multiple acquisitions that usually extend a firm’s initial market to other regions or additional product lines. In France, the former middle-market company Altrad executed more than 50 acquisitions since its creation in the late 1980s, among which 20 were made only in the past ten years. Benefits of scale coming from operational improvement or improved commercial presence represent the core value creation lever that enables quick and sharp increases in firm valuation.

In the meantime, in addition to financial resources, some hands-on private equity investors have increasingly provided other services, such as strategic advice, business expertise, and networking facilitation. These supplementary resources help turn investments into “smart money”. Overall, the sources of value creation for private equity funds have, therefore, undergone a fundamental change over the past 50 years. However, they still mainly consist of either an *aggregation* of existing activities or their marginal optimization, rather than a support for *generative* growth.

Academic work has demonstrated that aggregation or optimization is not a factor of regeneration. The “research and development (R&D) paradox” that has been broadly discussed by academics states that the amount of financial expenditure in research and development is neither systematically correlated with a higher growth rate nor with an increase in firms’ innovativeness, regardless of the criteria considered, for example, number of new patents, new products, etc.⁶ The disconnect between R&D intensity and growth performance is strikingly epitomized by cases of “orphan” innovation,⁷ i.e., situations where no innovative product, service, or solution arises despite heavy investments and high market and social expectations. While R&D investment remains obviously useful, it is, in numerous cases, not the bottleneck. On the contrary, to

sustain generative growth, firms need to shape their ability to escape cognitive biases on known designs, explore unknown paths, design further opportunities, renew expectations, and search for desirable novel product properties and performance criteria.⁸

Besides, a few studies have analyzed the relationship between private equity investments and patenting strategies. They demonstrate that, contrary to common preconceptions, investors, on average, only have a slightly positive or even no impact on patent count, originality, or genericity.⁹ However, they do change an invested firm's patent portfolio by making it more focused, which might appear contrary to the required breadth of exploration strategies that are needed to support generative growth. This evidence suggests that the usual private equity models struggle to sustain mature firms' constant regeneration.

The time is now ripe for a change in investment strategies for innovative, mature firms

While value creation models have changed, the fact that most private equity firms have a limited investment time horizon constrains firms' innovation strategies. The most common fund structure chosen by fund managers worldwide is the limited partnership. Although countries have specific regulatory frameworks for such vehicles, they all legally restrict the investment period to a maximum of 10 years—usually with an extension option of a few more years. This timeframe includes the search and divestment phases, thus leading to an average stock ownership period of three to five years, or eight for the most patient investors.

The search for a tangible performance increase in this limited timeframe explains the focus on productivity gains or buy-and-build strategies that succeed or fail quickly. Yet, it can be in contradiction to a firm's innovation dynamic and encourages firms to give up regeneration activities to focus, at best, on accelerating a handful of existing R&D projects. Sometimes, even if not preventing the firm from pursuing its renewal, financial constraints linked to the buyout technique can stifle them.

In France, the fall of SoLocal (previously known as PagesJaunes) is a symbolic example of the potential consequences of a traditional investment rationale that has failed to consider a firm's regeneration. Created through a merger in 2000, SoLocal was a flourishing business specializing in printing telephone directories. In 2006, two U.S. funds acquired the majority of the company, valued at EUR 6 billion, in the most expansive leveraged buyout that ever took place in France. Based on their perception of the firm's ability to generate steady profits, they used a classic buyout setting, which maximizes return on investment while making the acquired firm bear the brunt of costs. The strategy consisted of incurring a large debt to finance the acquisition and then asking the firm both for an initial special dividend, which forced SoLocal to raise debt of 2 billion euros, and yearly dividends. A year after the buyout, the firm started

to renew its activities by evolving from printed directories to launching successful digital activities. However, despite this successful digital transition, excessive debt was dragging 60% of net revenue. SoLocal was close to default in 2016 and suffered significant restructuring.

The bias in the pursued rationale can be analyzed as follows. While the development of venture capital was based on the concept of an "equity gap",¹⁰ which points out the lack of funding for risky, innovative projects, the need for innovative mature firms is different. The struggle of these firms is less a lack of financial resources for innovation—mature firms historically self-finance their innovation strategies¹¹—and more on finding investors that commit to sustaining regeneration strategies whose length might exceed the investment period. This regeneration process can indeed occur over a long period while producing intangible by-products along the way, such as new concepts, increased knowledge, or shared imaginaries that are difficult to appraise on a financial market. Each time an investment period ends, this difficulty leads to an undervaluation of the inherently innovative company, therefore making it hard to find new investors that will sustain the regenerating strategy. In the end, the issue at play is one of stock liquidity, which repeats itself at the end of each investment time period: these companies face a "liquidity gap" rather than an "equity gap".

A renewed investment model to sustain generative growth

The liquidity gap challenge calls for a change in the rationale for private equity investment. A few investors have already taken the plunge. One notable state initiative is the launch in 2014 of dedicated investment vehicles by Bpifrance, a French state-owned investment bank.

Mature firms, and especially middle market firms, face the strategic dilemma of choosing between sustaining short-term aggregative growth—for example, through repeated acquisitions and increased production capacity—and fostering a generative growth that deeply renews firms' activities. Committing to support both firms' innovation portfolio regeneration and usual optimization or market extensions impacts private equity funds selection, valuation, and post-investment processes.¹² Some investors are developing original strategies in this regard. For instance, instead of focusing only on extrapolating future revenues from current activities, scouting and selection processes can also be tailored to identify creative concepts that can generate upcoming growth and assess firms' innovation capabilities to renew them over the long run. To that end, data on current innovation processes can supplement due diligence prior to buyout deals that already gather rich datasets. Rather than assessing patent applications, due diligence can instead focus on research partnerships. In addition to business plans for upcoming products, they can also map innovation fields. Lastly, beyond simply looking at market shares, they can identify whether a firm has developed breakthrough R&D skills.

Regarding post-investment strategy, instead of promoting pure financial and operational engineering, investors can at least secure a financial allowance to sustain R&D activities. However, investors' support strategies for generative growth are not limited to securing R&D funding. Alternative equity sources, such as evergreen funds that have no pre-defined termination, can facilitate investor support for firms' innovation strategies but not ensure it. Post-investment strategies can also foster networks that enable the sharing of socio-technical imaginaries, which then help to renew expectations, objects, market usages, etc.¹³ This type of development strategy was, for instance, key to Intel's growth in the 1990s. Intel had developed a microprocessor whose performance capacity exceeded the needs of existing devices.¹⁴ To better sell this core product, the firm invested in the stimulation of innovative external applications that needed high-performance microprocessors and designed the USB port—the connection interface between personal computers and these external electronic devices. If Intel had been a private-equity backed firm, it would have been in investors' interest to finance these supplementary assets to capture more value instead of traditionally composing a portfolio of independent firms.

Beyond this deep change of investor rationale, which solely depends on investors' own strategic choices, some firms opt for alternate legal frameworks called profit-with-purpose corporations, such as social purpose corporations in the U.S. and more recently "Sociétés à Mission" or profit-with-purpose companies in France.¹⁵ By adopting these new frameworks, an increasing number of firms—no matter their size or maturity—are resolutely securing their long-term projects and raising awareness for their disruptive innovation efforts. These new corporate forms allow firms to set additional objectives, beyond profit, in the bylaws of the corporation. These objectives can be social or environmental but also scientific or innovative. Once they are in the bylaws, they are stable over any renewal of shareholders, and management must then account for how the strategies respect these objectives. Atos is a recent example of such a company. In 2019, this multinational information technology service and consulting company added a purpose to its incorporation text. According to its CEO, it aimed at sustaining academic research and launching partnerships to explore innovation fields, such as artificial intelligence, that would enable the renewal of its activity portfolio in the upcoming years.

In France, the reform introducing the purpose of the firm celebrates its first birthday in 2020. The Minister of the Economy has already announced that all enterprises benefiting from state equity will have to adopt a "purpose". This purpose could be used to secure a commitment to innovate. A few investment funds are currently developing specific vehicles dedicated to profit-with-purpose companies. We can expect that such legal frameworks will deeply change the way investors interact with their portfolio companies and potentially invite them to be more proactive, whatever the holding period, to sustain regeneration strategies.

Conclusion—the way forward

A firm's life cycle is usually depicted in four main linear steps, namely birth, expansion, maturation, and decline. Start-ups are often seen as the vehicle enabling the regeneration of the industry, by cannibalizing existing firms or by opening up new fields. However, innovation activities that sustain industry regeneration are not restricted to start-ups. While private equity support to innovation focuses on venture capital, investors also have a leading role to play in sustaining innovation in mature firms. However, current private equity investment models have not been tailored to support generative growth paths that enable the renewal of firms' activities over the long-run.

Fostering generative growth proves even more critical in lower-income countries. Regarding mature firms, most of those countries, especially in Africa, currently face what is commonly called the "missing middle", which means that they suffer a shortage of small and middle-market firms that can spur national economic growth. Tempting aggregative growth strategies, such as the consolidation of an industry sector through the acquisition of multiple small firms by a platform company, certainly boost the growth of the selected firm but lead to misleading effects at the national level and occur at the risk of impeding national development. Besides, an increasing number of lower-income economies have embarked on programs to develop venture capital funds and attract additional national and foreign financial resources in order to fill equity gaps, boost innovation, and eventually enhance national competitiveness. Successful start-ups end up as mature firms. While launching their first products, start-ups will face the challenge of developing the next generations of innovation and the need to find investors supporting these generative growth strategies. A restricted public policy focused on supporting the mere provision of financial resources based on historical private equity strategies would likely worsen the liquidity gap. Thus, on top of the focus on reducing equity gaps, the challenges set by a liquidity gap shouldn't be underestimated. States have a leading role to play in structuring private equity industry, not only by providing additional financial resources but also by fostering new rationales supporting generative growth.

Generative growth should be carefully distinguished and prioritized, especially in emerging countries. Public policies can contribute to tackling this challenge. Various stakeholders, investors, and companies can be trained to distinguish the needs of growing companies and adapt private equity strategies. The most recent strategies of innovation financing and management would help in this regard, especially to renew scouting, selection, post-investment, and exit processes. For instance, as disruptive innovation requires dealing with new design logic that goes beyond uncertainty reduction, it requires investors to master alternative reasoning on risk mitigation.¹⁶ Besides, exploration is crucial to generative growth strategies; thus, investors can, for instance, support firms' involvement in side organizations that collectively explore innovation fields, as these ensure crucial sharing of new phenomena, technologies, uses, etc.¹⁷ Instead of composing a portfolio of independent firms, investors can benefit from these interactions by investing

in firms that are investigating supplementary innovation fields. It could also be beneficial to design and promote investment strategies that enable some firms to pull out of private equity cycles and become independent again.

Overall, the need for a balance between extension or enhancement activities on one side and regeneration strategies on the other occurs along the entire firm's life cycle and is even more significant in middle market firms. Thus, these recommendations apply, to various extents, to private equity investors of all asset classes. States can play a leading role in spreading new relevant practices, in particular through their national development banks.

Notes:

- 1 Private equity occurs when investors directly buy companies that are not publicly traded, including for de-listing transactions. Current private equity asset classes take the form of either venture capital, growth capital, leveraged buyouts, or turnover, depending on the maturity of the target (i.e., start-ups, expanding firms, mature firms with steady profits, or declining firms).
- 2 Preqin, 2020; This amount is in between Japanese and German 2019 GDP estimates by the International Monetary Fund.
- 3 Preqin, 2020.
- 4 Chapel, 1997; Hatchuel et al., 2006.
- 5 Middle market companies (also known as mid-sized firms) are in between large ventures and small firms in size. There is no international standard to define them. In Germany, they form the well-known Mittelstand according to sociological criteria. Following a 2008 law in France, known as "Loi de Modernisation de L'économie", they have encompassed firms answering to a set of three criteria: number of employees (250 to 5000), turnover, and total liabilities.
- 6 Hatchuel et al., 2001; Jaruzelski et al., 2005.
- 7 Agogué et al., 2013.
- 8 Le Masson et al., 2017.
- 9 Amess et al., 2016; Kaplan et al., 2009.
- 10 Macmillan, 1931.
- 11 Matouk, 2010.
- 12 Parpaleix et al., 2019.
- 13 Cogeze et al., 2013; Hooge et al., 2016; Le Masson et al., 2013.
- 14 A microprocessor is at the heart of every computer. Every action on a computer is described by instructions. The microprocessor is the chip that executes these instructions.
- 15 Levillain et al., 2019a; Levillain et al., 2019b.
- 16 See Global Innovation Index 2020, Chapter 6.
- 17 Agogué et al., 2013.

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