PERSPECTIVE PIECE

Invited article
Original version | DOI: http://dx.doi.org/10.1590/S0034-759020250406

BUSINESS CYCLES AND THEIR IMPLICATIONS FOR STRATEGIC MANAGEMENT

Ciclos de negócios e suas implicações para a gestão estratégica

Ciclos de negocios y sus implicaciones para la gestión estratégica

Roberto Vassolo[*1] | rvassolo@iae.edu.ar | ORCID: 0000-0002-0870-397X
Friedrich Franz Forstner[1] | ff.forstner@gmail.com | ORCID: 0000-0003-2995-6455

[*]Corresponding author
[1]IAE Business School, Department of Strategy, Pilar, Argentina

ABSTRACT

This perspective paper explores how fluctuations in the business cycle influence competitive dynamics, drawing on insights from neo-Schumpeterian and evolutionary economics. The review begins by differentiating between companies' cyclical and countercyclical strategies to navigate economic cycles. It then examines the strategic approaches by late entrants during economic downturns to achieve sustainable competitive advantages. Additionally, the paper delves into how dominant market players capitalize on their market power to reinforce their leadership positions. Finally, the review highlights promising research opportunities to advance the theoretical discourse in this field.

Keywords: recessions, sustainable competitive advantage, countercyclical strategies, business cycles, competitive dynamics, strategic flexibility, competitive leapfrogging, neo-Schumpeterian.

RESUMO

Este artigo de perspectiva explora como as flutuações em ciclos de negócios influenciam dinâmicas competitivas, a partir de insights da economia neo-schumpeteriana e evolucionária. Trata-se de uma revisão que começa diferenciando estratégias cíclicas e anticíclicas das empresas ao atravessarem ciclos econômicos. Em seguida, examinamos as abordagens estratégicas de empresas que entram tardiamente em um mercado para obter vantagens competitivas sustentáveis durante crises econômicas. Ainda, analisamos com mais profundidade como os participantes dominantes capitalizam seu poder de mercado de forma a reforçar suas posições de liderança. Finalmente, a revisão destaca potenciais oportunidades de pesquisa para avançar o discurso teórico nesse campo.

Palavras-chave: *recessões, vantagem competitiva sustentável, estratégias anticíclicas, ciclos de negócios, dinâmica competitiva, flexibilidade estratégica, salto competitivo, neo-schumpeteriana.*

RESUMEN

Este artículo de perspectiva explora cómo las fluctuaciones en los ciclos de negocios influyen en la dinámica competitiva, basándose en insights de la economía neoschumpeteriana y evolutiva. La revisión comienza diferenciando entre las estrategias cíclicas y contracíclicas de las empresas para navegar los ciclos económicos. Luego examina los enfoques estratégicos de las empresas que entran tardiamente en un mercado para lograr ventajas competitivas sostenibles durante las recesiones económicas. Además, el artículo profundiza en cómo los actores dominantes del mercado capitalizan su poder de mercado para reforzar sus posiciones de liderazgo. Finalmente, la revisión destaca oportunidades de investigación prometedoras para hacer avanzar el discurso teórico en este campo.

Palabras clave: *recesiones, ventaja competitiva sostenible, estrategias contracíclicas, ciclos de negocios, dinámica competitiva, flexibilidad estratégica, salto competitivo, neoschumpeteriana.*

In March 2020, the onset of the COVID-19 pandemic triggered a global recession about a decade after another critical shock caused the global financial crisis of 2007-09. However, a historical economic expansion marked the decade between these two crises. Although the COVID-19-induced recession was severe, the S&P 500 and the NASDAQ Composite Index reached all-time highs within approximately five months of the onset of the pandemic, fueled by a narrow market rally focused on the Magnificent Seven (M7), including Amazon, Alphabet, NVIDIA, Tesla, Meta, Apple, and Microsoft. The magnitude and duration of the upward and downward movements of the business cycle challenge management scholars to understand the effects of macroeconomic downturns on competitive dynamics (Garcia-Sanchez et al., 2014; Vassolo et al., 2017, 2023). Scholars have recently begun to investigate how these cyclical fluctuations influence strategic decision-making, firm performance, and competition (Chakrabarti et al., 2011; Flammer & Ioannou, 2021; Knudsen & Lien, 2019; Nason & Patel, 2016; Wenzel et al., 2020). Periods of growth can intensify rivalry as businesses compete to capitalize on booming demand, creating a delicate balance between leveraging expansionary momentum and preparing for the inevitable market corrections that follow.

This article reviews recent contributions to hasten our theoretical understanding of the effects of the business cycle on competitive dynamics. It provides a programmatic direction for further studies in this research strand. The literature has evolved in a fragmented manner. Thus, we follow the lens of neo-Schumpeterian and evolutionary economics. In essence, our main understanding when organizing the literature is as follows: The economy grows in cycles, oscillating between periods of expansion and recession (Burns & Mitchell, 1946; Kydland & Prescott, 1990), temporarily creating a disequilibrium between the macroeconomic environment, industry rivalry, and firm-level competitive advantages. Firms react to this disequilibrium by taking a routine-based approach grounded in well-tried experience (Nelson & Winter, 1973; Schumpeter, 1927). These routine-based reactions interact with the stage of the industry life cycle (Klepper, 1997), creating unique conditions for changes in the competitive landscape. Routine-based decisions regarding the entire business cycle require adjustments during recessions. The overall effect of managing the business cycle stems from integrating long-term decisions made across the cycle with strategic adjustments during recessions. Our literature review considers this perspective, differentiating between long-term decisions and short-term adjustments.

Therefore, we advance our review in three stages. *First*, our paper delves into how companies can effectively deploy procyclical or countercyclical strategies and their impact on performance. *Second*, it explores how competitive leapfrogging can give companies a competitive advantage during recessions. *Third*, we briefly examine how competition could be affected when some firms with significant market power and financial capacity influence the business cycle. For each of these sections, we outline promising areas for future research.

UNDERSTANDING ANTICYCLICAL AND PROCYCLICAL STRATEGIES

We claim that the first decision a company makes regarding the business cycle is whether to adopt a procyclical or anticyclical orientation. We define procyclical and anticyclical strategies in terms of choice related to financial slack. Financial slack, also known as financial flexibility, refers to a company's excess financial resources, such as debt capacity and cash reserves (Grüner & Raastad, 2018). It determines companies' ability to adjust their financing and investment decisions in response to environmental changes. During economic expansions characterized by abundant munificence, financial slack represents a cost; however, during recessions, it enhances a company's ability to adapt. Procyclical companies maintain permanently low levels of financial slack, while anticyclical ones tend to have higher levels.

Given that companies operate with routines shaped by the business cycle (Schumpeter, 1927), it is reasonable to observe stable patterns of financial slack that persist regardless of economic conditions. Empirical evidence shows that firms with an adaptive and countercyclical orientation during recessions can seize opportunities that their less flexible competitors might miss (Safón & Iborra, 2023). Countercyclical strategies are highly valuable for both portfolio-level or corporate-level and business-level strategies, enabling firms to navigate economic fluctuations more effectively and seize unique opportunities during downturns. For example, Navarro et al.'s (2010) study of 35 S&P 500 firms showed that those pursuing countercyclical investment decisions achieved superior performance. Firm investments in R&D during recessions can translate into long-term competitive advantage (Anon-Higon et al., 2014; Cucculelli et al., 2014). As another example, acquiring assets at undervalued, reduced prices during recessions can significantly enhance a firm's strategic advantage when the economic environment improves (Chen et al., 2012).

Such strategic moves act as selection mechanisms: more adaptive firms thrive while less adaptive ones are weeded out. From an evolutionary perspective, firms learn from experience and refine their routines to handle future economic changes more effectively. Through this learning process, companies develop resilience, enabling them to survive and thrive downturns. Although companies can maintain stable levels of financial slack, they can also implement time-based adjustments aligned with the business cycle. Rather than adhering to stable slack patterns, it is theoretically feasible for some companies to adjust their slack levels based on the economic risk of entering a recession (Vassolo et al., 2023). Accurately predicting recessions is challenging, but various indicators, such as a sudden inversion of the yield curve, declining consumer confidence levels, or a sharp drop in manufacturing output, can raise red flags. Studying these fluctuations opens promising avenues for research, allowing scholars to test opposing hypotheses on stable versus "strategic" slack.

Innovative investment management relies on a strategic balance between cost-cutting measures and sustained investments in critical areas. Different business cycle phases require companies to make astute investment decisions, as these can become a platform for superior resilience and long-term competitive advantage. Stable decisions regarding financial slack

are a pillar of countercyclical strategies. In the context of recessions, Knudsen and Lien (2019) highlighted that R&D investments should remain insulated from adverse demand fluctuations since they are subject to high adjustment costs and are crucial for sustained long-term competitiveness. In their study, companies that maintained or increased their R&D investments despite economic downturns demonstrated superior long-term competitiveness and innovation capabilities. Consequently, these firms responded more effectively to market changes and outperformed competitors that cut R&D investments. Similarly, Roper and Turner (2020) confirmed that firms maintaining their R&D activities during recessions achieved higher survival rates, stronger growth, and improved profitability. Likewise, increasing investments in training and development amid mild drops in demand helped firms capitalize on lower opportunity costs, improving employee skills and organizational capabilities, thereby positioning them more strongly for subsequent business cycle upturns (Knudsen & Lien, 2019). Investments in physical assets are less sensitive to drops in demand and can be adjusted or deferred as required (Knudsen & Lien, 2019). Confirming these findings, Flammer and Ioannou (2021) posited that companies sustaining their investments in R&D and corporate social responsibility during the Great Financial Crisis (2007-2009) outperformed those that did not. Maintaining investments in innovation and stakeholder relationships enabled firms to achieve higher post-crisis performance, measured by a combination of improved returns on assets, higher Tobin's Q, and more favorable stock recommendations from analysts. The effects of such strategic investments were more pronounced in industries where innovation and stakeholder relations significantly contributed to competitiveness.

Safón and Iborra (2023) noted that SMEs with an exploration-oriented, countercyclical approach to recessions experienced more sustained growth and stability and elevated competitive performance during and after recessions. The most successful firms slowed down their growth investments prior to crises to proactively adjust to evolving conditions. During recessions, they accelerated their investments to capitalize on emerging market opportunities. The authors emphasized the role of dynamic capabilities in enabling strategically minded SMEs to anticipate shocks and realign their internal resources to changing market environments. In line with these findings, Wenzel et al. (2020) provided further evidence that innovation and resource repositioning positively affect corporate performance in adverse economic conditions. However, they cautioned that while preserving resources can be effective in the medium term, prolonged crises may deplete resources, rendering this strategy unsustainable. Integrating these insights into a comprehensive framework is crucial for advancing research in this domain and helping firms navigate the complexities of the business cycle more strategically and effectively.

In summary, the literature underscores that maintaining or increasing strategic investments and resource flexibility during economic downturns can provide significant competitive advantages once the economy recovers. While stable patterns of financial slack and countercyclical strategies have demonstrated long-term benefits, timing, dynamic capabilities, and market signals offer a promising starting point for future research. Further research could investigate how firms leverage

emerging technologies, diversify their innovation portfolios, or form strategic partnerships to mitigate downturn risks. Moreover, examining sector-specific dynamics, the effects of government policies, and the influence of environmental factors on slack management may reveal which strategies are most likely to yield superior performance. Understanding these dimensions will aid practitioners and policymakers in guiding organizations toward more resilient, adaptive, and opportunity-focused approaches for navigating the business cycle.

Business cycle-based competitive leapfrogging: What it is and how it works

The business cycle oscillates in periods of different duration, with expansion periods typically lasting longer than recession periods. During an expansion, various indicators such as employment, income, and production increase. Conversely, recessions are characterized by a decline in overall economic activity. The duration and characteristics of the business cycle vary across countries. In the United States, according to data from the National Bureau of Economic Research, recessions have lasted about 11 months, while expansions have extended for an average of 58.4 months since World War II.

Although recessions represent a small portion of the business cycle, they create unique opportunities for companies to achieve "competitive leapfrogging" (Vassolo, Reyes et al., 2017). This phenomenon occurs when a firm significantly improves its competitive positioning by pursuing strategic actions to capitalize on market opportunities or disruptions. Sources of leapfrogging include innovation, adaptability, or counterintuitive strategies that enable firms to leapfrog over competitors that are possibly constrained by traditional approaches or slower to respond to changes. Competitive leapfrogging is especially relevant for companies striving to strengthen their competitive advantage. Economic downturns offer excellent opportunities for resourceful, proactive, and strategically agile firms to exploit competitors' weaknesses, invest in innovation, or adopt bold strategies that position them advantageously when the market recovers. The rise of Tesla after the 2008 financial crisis represents a highly relevant case of leapfrogging. While most established car manufacturers were struggling in the face of weaker consumer spending and financing restrictions, Tesla seized the opportunity for groundbreaking innovation: It aggressively promoted its fully electric vehicles with an innovative model of direct-to-consumer sales. These actions allowed Tesla to leapfrog established car manufacturers locked in complex dealership networks, less flexible supply chains, and slower innovation cycles. By capitalizing on the disruption and continuously refining its product lineup in adverse economic times, Tesla emerged as a market leader in the rapidly growing electric vehicle segment.

We differentiate between demand and supply-side mechanisms of competitive leapfrogging. Demand-side mechanisms involve introducing products or services with significantly improved features, quality, or relevance to evolving customer needs, often in mature or declining

industries. Research has shown that changing market share becomes increasingly challenging as industries mature (Klepper, 1997). Due to less competition and reduced concentration, the surviving companies can increase their pricing power and scale, resulting in higher market influence. Herein, competitive leapfrogging can offer varied pathways to differentiation and renewed growth for companies by disrupting the evolutionary path of the industry lifecycle. For instance, Garcia-Sanchez et al. (2014) argued that companies that learned to adjust and innovate in the face of economic turbulence may emerge stronger than before. Such firms can develop dynamic capabilities that enable them to integrate, build, and reconfigure internal and external competencies to navigate changing environments effectively. Zhu et al. (2017) found that latecomer firms with limited technological innovation capabilities in emerging markets caught up and surpassed the market share held by incumbents by using customer-centered business model innovation. Surprisingly, their success factors were neither cost efficiency nor technological leadership. Instead, business model innovations that provided the most effective solutions to discerning and responding to changing customer preferences were most important in helping latecomers achieve quantum leaps.

Exploiting supply-side isolating mechanisms represents a potential alternative source of growth for companies and has proven particularly effective during recessions. (Vassolo, Reyes et al., 2017) By leveraging advanced technologies and more efficient processes, late entrants can drastically lower production costs and economize in scale, while incumbents often grapple with legacy systems and sunk costs that hinder their swift adaptation. As a result, emerging competitors manage to leapfrog, while incumbents cannot realign their supply chains, face escalating costs, and, eventually, market exit. Recessions amplify the advantages for first movers in terms of pre-emption of critical assets and technological leadership (Vassolo, García-Sánchez et al., 2017).

In addition to demand and supply mechanisms, mergers and acquisitions form a third pillar of competitive leapfrogging, proving particularly powerful during recessions. Financial slack, used synonymously with financial flexibility, amplifies the effects of supply-side isolating mechanisms and strategic flexibility. Financial flexibility in terms of strong balance sheets and minimal debt becomes a key asset for companies during recessions through several mechanisms: it can create a buffer when the environment changes by helping firms absorb potential losses and acquire weaker competitors (Sapienza et al., 2006). Furthermore, it can enable firms to invest in growth opportunities (Vassolo, Reyes et al., 2017).

Under uncertainty, the value of strategic flexibility increases (Trigeorgis & Reuer, 2017) since it allows firms to capitalize on positive environmental changes while minimizing losses if the situation deteriorates. Sources of strategic flexibility are myriad and include real options, diversification, organizational capabilities, partnerships, and financial reserves. Kulatilaka and Perotti (1998) contended that under uncertainty, initial investments should be regarded as real options, allowing firms to increase operations as market conditions develop and demand increases. Incorporating such growth options in corporate strategic decisions is particularly important since it adds value to the firm in terms of future growth opportunities (Kraft et

al., 2013). Firms can decide whether to build internal capabilities or buy external resources (Makadok, 2001). This approach allows firms to develop a flexible strategy whereby they can invest in building their own resources and capabilities while remaining open to acquiring external ones when advantageous.

Vassolo et al. (2023) posited that firms can gain a competitive advantage by using an integrated approach combining real options theory with strategic factor market theory. Following this dual approach, firms can acquire undervalued resources at lower costs due to market imperfections amid environmental uncertainty and retain the option to capitalize on new opportunities. According to strategic factor market theory, the value of strategic production factors can change transitorily. First, business cycle downturns create heterogeneous expectations of the future value of assets among market participants. Such heterogeneous expectations trigger a fluctuation in the perceived strategic asset value as investors and companies reset their expectations in line with changing economic environments (Barney, 1986). Furthermore, the complementarities or synergies between firm capabilities and assets may be reevaluated as companies adjust their strategies to cope with the recessionary environments (Adegbesan 2009). Second, strategic factor markets may not price assets correctly amid market uncertainty (Denrell et al., 2003). These two factors may create opportunities for companies to acquire strategic assets below their market value, immediately improving their competitive advantage.

Recessions force companies to enhance their production efficiencies by eliminating avoidable costs and driving innovation to remain profitable. Companies that achieve both objectives are well-positioned to leapfrog their competition, as Amazon has demonstrated. The company emerged as a winner from the 2008 financial crisis by pursuing a dual approach of exploiting the benefits of supply-side mechanisms and focused strategic acquisitions. In 2009, Amazon acquired online shoe retailer Zappos for USD 1.2 billion, which significantly broadened its product offerings and allowed it to gain valuable operational expertise, expand its market share, and strengthen its overall competitive position. At the same time, Amazon embarked on a radical drive to streamline its production and supply chain operations. By proactively embracing such strategies, companies can turn decline into an opportunity, positioning themselves for renewed growth and market leadership despite the overall downturn in their industry.

The business cycle and the digital revolution

Our discussion has focused on the effect of the business cycle on competitive dynamics. However, considering the ubiquitous and pervasive influence of the M7 on technological advancement, regulations, industry concentration, and growth, we begin a discourse about how dominant players leverage the business cycle to reinforce their competitive position. To align with our core argument that big companies leverage the business cycle to grow even larger, we concentrate on this aspect and refrain from discussing their potential influence on the business cycle.

Firms with substantial market power often have the resources and influence to thrive in upturns and downturns. During expansions, these firms can use their financial capacity to invest heavily in innovation, marketing, and acquisitions, further solidifying their market position. Their substantial capital reserves enable them to outcompete smaller firms, which might struggle to match their investments, leading to a consolidation of market share. By contrast, during downturns, these firms can leverage their superior creditworthiness to secure financing at favorable terms, enabling them to continue operations and even acquire struggling competitors at discounted prices.

For instance, Amazon's innovation in logistics and e-commerce has revolutionized retail, while Meta's developments in social media and virtual reality are altering communication and entertainment landscapes. Their exorbitant free cashflows have fueled their gigantic R&D efforts, contributing to 38% of total R&D spending by US public companies (Erencin et al., 2024), propelling them to ever higher levels of innovative advancement in a path-dependent trajectory. Their wealth enables them to diversify into new markets and engage in strategic acquisitions (Erencin et al., 2024). At the back of their growth engine, the M7 contribute significantly to economic growth, now accounting for 32% of the economic profit of all firms listed in the US stock market (Erencin et al., 2024).

Artificial intelligence (AI), developed and disseminated by the M7, offers a great example of the transformative and disruptive potential of a new technology, transforming entire industries, society, and the economy. With a projected annualized cumulative growth rate of 42% and an estimated market value exceeding USD 1.3 trillion over the next ten years (Bloomberg, 2023), AI is not only revolutionizing industries and upskilling jobs but also driving sustained productivity gains and economic growth.

The effect of global giants on competition is a topic of ongoing debate (Murcia & Suddaby, 2024). Examining the impact of the business cycle on competition introduces a new layer of analysis for future research and can ultimately contribute to the discussion on how best to regulate these giants.

Taking stock and moving forward

This perspective paper highlights the role business cycle fluctuations play in shaping strategic decisions, competitive dynamics, and firm performance. Cyclical phases are not just contexts that firms passively endure; they represent crucibles testing strategic flexibility, financial management, and organizational adaptability. The literature on strategic management related to the business cycle remains fragmented but represents a promising area for advancement. A deeper understanding of how companies adjust their strategies in line with the business cycle - either through countercyclical investment, innovation during recessions, or strategic acquisitions during conditions of uncertainty - can pay off with sustained advantages. Business cycles are a dynamic testing ground within which the evolution of firms is whittled down to where the less adaptable firms fade, and those able to reconfigure their resource bases

and capabilities in turbulent times reap the rewards. This underscores the importance of proactive leadership and foresight in leveraging these cycles as opportunities for long-term growth and resilience.

Practitioners should not view recessions and expansions as exogenous constraints but as strategic leverage points. Managers can prepare for downturns by building dynamic capabilities, fostering financial flexibility, and investing in R&D and human capital as sources of long-term competitive advantage. Furthermore, these findings serve as an impetus for competition policy, effectively limiting the power of industry giants. Finally, these insights provide a promising foundation for further research into the interplay between sector-specific characteristics, government interventions, and technological advancements within the context of the business cycle. Such research can facilitate more nuanced, long-term comparisons across diverse institutional settings and aid in refining existing theories on how firms navigate and respond to the dynamics of economic cycles.

REFERENCES

Adegbesan, J. A. (2009). On the origins of competitive advantage: Strategic factor markets and heterogeneous resource complementarity. *The Academy of Management Review*, *34*(3), 463-475. http://www.jstor.org/stable/27760014

Anon-Higon, D., Manjón-Antolín, M., Máñez, J. A., & Sanchís-Llopis, J. A. (2014). Does R&D protect SMEs from the hardness of the cycle? Evidence from Spanish SMEs (1990-2009). *International Entrepreneurship and Management Journal*, *11*(2), 361-376. https://doi.org/10.1007/s11365-014-0329-0

Barney, J. B. (1986). Organizational culture: Can it be a source of sustained competitive advantage? *The Academy of Management Review*, *11*(3), 656-665. https://doi.org/10.2307/258317

Bloomberg. (2023, May 31). Generative AI to become a $1.3 trillion market by 2032, research finds. Bloomberg. https://www.bloomberg.com/company/press/generative-ai-to-become-a-1-3-trillion-market-by-2032-research-finds/

Burns, A. F., & Mitchell, W. C. (1946). *Measuring business cycles*. National Bureau of Economic Research.Chakrabarti et al. (2011)

Chakrabarti, R., Lee, D., van der Klaauw, W., & Zafar, B. (2011). Household debt and saving during the 2007 recession. *National Bureau of Economic Research*. https://doi.org/10.3386/w16999

Chen, H., Cúrdia, V., & Ferrero, A. (2012). The macroeconomic effects of large-scale asset purchase programmes. *The Economic Journal*, *122*(564), F289-F315. https://doi.org/10.1111/j.1468-0297.2012.02549.x

Cucculelli, M., Bettinelli, C., & Renoldi, A. (2014). How small-medium enterprises leverage intangibles during recessions: Evidence from the Italian clothing industry. *Management Decision*, *52*(8), 1491-1515. https://doi.org/10.1108/md-01-2014-0034

Denrell, J., Fang, C., & Winter, S. G. (2003). The economics of strategic opportunity. *Strategic Management Journal*, *24*(10), 977-990. https://doi.org/10.1002/smj.341

Erencin, C., Evenett, S. J., Gruber, A., & Reitz, F. (2024, February 15). *Outcomes matter: Do aggregate economic profit outcomes align with established metrics about national business environments?* IMD. https://www.imd.org/ibyimd/finance/outcomes-matter-do-aggregate-economic-profit-outcomes-align-with-established-metrics-about-national-business-environments/

Flammer, C., & Ioannou, I. (2021). Strategic management during the financial crisis: How firms adjust their strategic investments in response to credit market disruptions. *Strategic Management Journal*, *42*(7), 1275-1298. https://doi.org/10.1002/smj.3265

Garcia-Sanchez, J., Mesquita, L. F., & Vassolo, R. S. (2014). What doesn't kill you makes you stronger: The evolution of competition and entry-order advantages in economically turbulent contexts. *Strategic Management Journal*, 35(13), 1972-1992. https://doi.org/10.1002/smj.2189

Grüner, A., & Raastad, I. (2018). Financial slack and firm performance during economic downturn. *GSL Journal of Business Management and Administration Affairs*, *1*(1), 1–7.Klepper, S. (1997). Industry life cycles. *Industrial and Corporate Change*, *6*(1), 145–181.

Knudsen, E. S. (2019). Bad weather ahead: Pre-recession characteristics and the severity of recession impact. *Journal of Business Research*, *104*, 118–130. https://doi.org/10.1016/j.jbusres.2019.05.031

Knudsen, E. S., & Lien, L. B. (2019). Hitting the gas or the brake? Recessions and firms' knowledge investments. *Managerial and Decision Economics*, *40*(8), 1000-1015. https://EconPapers.repec.org/RePEc:wly:mgtdec:v:40:y:2019:i:8:p:1000-1015

Kraft, H., Schwartz, E., & Weiss, F. (2013). Growth options and firm valuation. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2224014

Kulatilaka, N., & Perotti, E. C. (1998). Strategic growth options. *Management Science*, *44*(8), 1021-1031. http://www.jstor.org/stable/2634682

Kydland, F. E., & Prescott, E. C. (1990). Business cycles: Real facts and a monetary myth. *Federal Reserve Bank of Minneapolis Quarterly Review*, *14*(2), 3–18. https://doi.org/10.21034/qr.1421 econpapers.repec.org+5

Makadok, R. (2001). Toward a synthesis of the resource-based and dynamic-capability views of rent creation. *Strategic Management Journal*, 22(5), 387-401. https://doi.org/https://doi.org/10.1002/smj.158

Murcia, M. J., & Suddaby, R. (2024). A layered governance approach to regulating Big Tech. *Long Range Planning*, 57(4), 102453. https://doi.org/10.1016/j.lrp.2024.102453

Nason, R. S., & Patel, P. C. (2016). Is cash king? Market performance and cash during a recession. *Journal of Business Research*, *69*(10), 4242–4248. https://doi.org/10.1016/j.jbusres.2016.04.001

Navarro, P., Bromiley, P., & Sottile, P. (2010). Business cycle management and firm performance: Tying the empirical knot. *Journal of Strategy and Management*, 3, 50-71. https://doi.org/10.1108/17554251011019413

Nelson, R. R., & Winter, S. G. (1973). Toward an evolutionary theory of economic capabilities. *American Economic Review*, *63*(2), 440–449.

Roper, S., & Turner, J. (2020). R&D and innovation after COVID-19: What can we expect? A review of prior research and data trends after the great financial crisis. In *International small business journal: Researching entrepreneurship* (Vol. 38, Issue 6, pp. 504-514). SAGE Publications Ltd.

Safón, V., & Iborra, M. (2023). Braking before the curve and accelerating inside? Exploration, countercyclical behavior, and SMEs' resilience during economic downturns. *BRQ Business Research Quarterly*, 28(1), 252-264. https://doi.org/10.1177/23409444231184483

Sapienza, H. J., Autio, E., George, G., Zahra, S. A., & A, S. A. (2006). *A capabilities perspective on the effects of early internationalization on firm survival and growth* (Vol. 31, Issue 4). https://ink.library.smu.edu.sg/lkcsb_research

Schumpeter, J. A. (1927). The explanation of the business cycle. *Economica*, *21*, 286–311.

Trigeorgis, L., & Reuer, J. J. (2017). Real options theory in strategic management. *Strategic Management Journal*, 38(1), 42-63. https://doi.org/10.1002/smj.2593

Vassolo, R., García-Sánchez, J., & Mesquita, L. (2017). Competitive dynamics and early mover advantages under economic recessions. *RAE-Revista de Administração de Empresas*, 57, 22-36. https://doi.org/10.1590/S0034-759020170103

Vassolo, R., Reyes, T., & Parrao, A. (2023). The strategic value of recessions: An integrated real option and strategic factor market approach. *Academy of Management Proceedings*, 2023(1). https://doi.org/10.5465/AMPROC.2023.314bp

Vassolo, R., Reyes, T., Sepulveda, M. A., & Trucco, J. (2017). Jump! the effect of recessions on competitive positioning. *Academy of Management Proceedings*, *2017*(1), 13510. https://doi.org/10.5465/AMBPP.2017.13510abstract

Wenzel, M., Stanske, S., & Lieberman, M. B. (2020). Strategic responses to crisis. *Strategic Management Journal*, *41*(7/18), 3161. https://doi.org/10.1002/smj.3161

Zhu, H., Zhang, M. Y., & Lin, W. (2017). The fit between business model innovation and demand-side dynamics: Catch-up of China's latecomer mobile handset manufacturers. *Innovation*, *19*(2), 146-166. https://doi.org/10.1080/14479338.2016.1275979

CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

AUTHORS' CONTRIBUTION

Friedrich Forstner: Conceptualization; Visualization; Writing – original draft; Writing – proofreading, and editing.

Roberto Vassolo: Conceptualization; Visualization; Writing – original draft; Writing – proofreading, and editing.

   eISSN 2178-938X