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DO CROSS-BORDER M&AS PAY OFF? EMPIRICAL EVIDENCE ON ITALIAN ACQUIRERS

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EXECUTIVE SUMMARY

This research focuses on Italian companies that have decided to do outbound cross-border M&As. In particular, we focalize our attention on the accounting performance of bidders in the deal (Healy et al., 1992; Ghosh, 2001; Gugler et al., 2003; Rahman & Limmack, 2004; Moeller & Schlingemann, 2005; Mantravadi & Reddy, 2008; Stiebale & Trax, 2011; Bertrand & Betschinger, 2011; Guest et al., 2012; Edamura et al., 2014; Ashfaq et al., 2014; Rashid & Naeem, 2016; Nicholson et al., 2016; Adedeji & Ayoush, 2017; Cioli et al., 2020).

According to KPMG M&A reports for 2022, the Italian M&A industry from 2013 to 2022 had massive growth; it moved from 31 billion to 80 billion with a CAGR of +158%, and the number of deals completed moved from 381 to 1184 per year in the last decade.

It has been observed that the outbound cross-border M&A segment in Italy has seen significant growth in recent years. Based on the data analyzed on Eikon, this segment's growth rate is consistent with the overall Italian M&A industry. Specifically, the number of operations has increased from 98 in 2013 to 226 in 2022, with a CAGR of +130%.

It is a common narrative that foreign investors acquire Italian companies, portraying Italy as a "land of conquest". However, a closer look at the available data reveals that Italian companies also engage in cross-border acquisitions. According to the annual report about M&As made by KPMG in 2021, out of the ten highest-value deals, six were outbound cross-border M&As, two were inbound cross-border M&As, and the remaining two were domestic M&As. It is noteworthy that this trend of outbound cross-border M&As being higher than inbound ones has been observed in the previous four years (2017-2021). However, larger deals are not the only relevant ones in the Italian M&A outbound market. We notice that the number of deals worth less than 250 million in the past three years (2020, 2021, and 2022) is rising more rapidly than those with a higher value (CAGR +14% vs CAGR 6%).

This could be a sign that Italian companies are increasingly going global, and M&A activity is becoming a tool that businesses use more frequently in the execution of their business strategies in order to speed up business transformation processes, broaden their presence in international markets, and reinforce their competitive positioning (Kpmg, 2022).

Given the relevance of cross-border M&As, management literature has primarily studied the effects of foreign ownership on target firms' performance. Several works focus their attention on Italian inbound cross-border M&As. In particular, they studied the topic from the company-acquired perspective and how foreign ownership impacts a firm's economic performance (Barbaresco et al., 2018; Bentivogli & Mirenda, 2017; Resciniti et al., 2015; Campagnolo & Vincenti, 2022). Few researchers, instead, focalize their studies on the financial performance of the bidder in outbound cross-border M&As (Cioli et al., 2020). Finally, from the international literature point of view, researchers have differing opinions on whether post-acquisition performance improves in terms of productivity, profitability, efficiency, size/growth, investments, and financial health.

Firms are increasingly acquiring targets in other countries in order to gain market power, overcome market entry barriers, enter new markets, reduce competition, change the competitive landscape, increase efficiency, gain access to new and diverse technologies and knowledge, and create new knowledge, products, and services (Hitt et al., 2012).

Some of the main drivers of Italian foreign acquisitions are the need to expand their influence in new geographical areas, identify skills not present in their organizations, broaden their supply perimeter and range of action, open up new markets, and create new business lines stimulated by constantly changing demand. Acquisitions are also becoming increasingly important for new technologies and digital services and their numerous applications in all sectors, ranging from retail to media, infrastructure, and industry, where the use of machine learning algorithms allows for the optimization of plant operations and the prevention of maintenance operations (KPMG, 2021).

Over the last 20 years, the companies that have experienced the most significant growth have all steadily exploited mergers and acquisitions; some examples are Amplifon, Autogrill, Biesse, Brembo, Campari, Cerved, Coesia, Fedrigoni, Granarolo, Luxottica, GI Group, Hera, and Interpump (KPMG, 2022; Ganz, Il Sole 24 ore, 16 December 2022 p.1; Casadei, Il Sole 24 ore, 22 February 2023 p.21).

The decision to follow an M&A as a strategy path has enabled these companies to diversify their product portfolio, enter new markets, acquire new brands, strengthen their technological know-how or distribution chains, and establish themselves as global leaders in their respective sectors.

Although there are numerous benefits to mergers, management may overestimate these benefits, resulting in higher costs at the end of the process and reduced acquirer performance. These costs may include difficulties managing international operations due to varying

governments, trade laws, and currencies, transaction costs such as coordination, distribution, and management, and trade barriers caused by cultural friction and competition (Hitt et al., 1997).

Companies need to learn and understand how to operate in a new environment with different rules regarding legal, economic, and cultural aspects (Bertrand & Betschinger, 2012).

Additionally, the agency theory is a relevant topic to underline that efficiency gain could not be the sole reason for a cross-border M&A. Jensen & Meckling (1976) suggest that since managers and shareholders have different interests, each party may try to maximize their own wealth. Therefore, the decision to acquire other companies may be in line with the management's interest in expanding the company, increasing their compensation, and reducing default risk through diversification rather than increasing the company's value, which shareholders desire (Cole et al., 2006; Stiebale & Trax, 2011; Bertrand & Betschinger, 2012).

In this study, we aim to identify the typical characteristics of Italian companies that engage in cross-border acquisitions, looking at data from 1985 until 2022. We will analyze their financial indicators, size, and preferences in terms of countries and sectors where they operate, and we will see how the features change over time. Then, we will compare the performance of Italian parent companies that engaged in cross-border M&As with those that did not, using a Difference in Difference (DID) approach combined with Propensity Score Matching (PSM) to determine if there is a significant difference in post-acquisition performance.

The empirical results suggest that Italian companies engaging in cross-border mergers and acquisitions have experienced a decreasing trend in average size over the last four decades. In addition, since 2000, companies engaging in M&A operations abroad have become less indebted. Over 37 years, the percentage of acquisitions made in the top 8 countries has decreased from around 80% to about 62% due to more foreign acquisitions and less investment concentration. Companies now seek opportunities in culturally diverse countries despite post-merger integration challenges.

Finally, our empirical findings show that cross-border M&As typically have no statistically significant effects under all aspects analyzed. However, there is an average decrease in ROA of -2.12%, EBITDA margin decrease of -0.98%, and current ratio decrease of -0.21% compared to companies that do not engage in international acquisitions in the three years after the acquisition. The negative impact is more pronounced when the acquirer is an SME company than when the acquirer is large.

CHAPTER 1. Mergers and acquisitions are essential in the global and Italian economy. We will cover current trends in M&As, with a focus on cross-border takeovers. We will analyze Italian M&A trends in recent years, including inbound, outbound, and domestic deals.
This chapter shows how M&A operations are increasingly being used as a strategic tool for middle-market companies, and the number of transactions remains constantly on the rise. However, big deals still have a consistent weight. Moreover, Europe is becoming an M&A leader, and venture capitalists and private equity funds play a crucial role in the global and Italian markets. What emerges from the investigations of the most important reports in the M&A industry is that cross-border M&A has been less affected by the decline in activity than domestic operations. The Italian market has seen growth in cross-border transactions, with larger foreign companies buying Italian ones. However, most Italian companies are still bought domestically.

CHAPTER 2. This Chapter examines the literature on post-cross-border M&A performance from the bidder's point of view and the role of resources. We analyze whether post-acquisition performance improves in terms of productivity, profitability, efficiency, size/growth, investments, and financial health. Interestingly, researchers have differing opinions on various aspects of the topic, and even the empirical methodologies used vary in some cases. We also consider the differences between domestic and international acquisitions and the effect of organizational slack on post-M&A performance. According to the literature analyzed, companies in the high-tech industry benefit from cross-border M&As by acquiring complementary technologies (Stiebale & Trax, 2011). Cash acquisitions perform better than stock acquisitions (Ghosh, 2001), and cross-border M&A is the most effective way to enter a foreign market if the bidder seeks to obtain non-mobile capabilities such as marketing, distribution, and country-specific institutional competency (Nocke & Yeaple, 2007). Finally, Organizational slack is essential for cross-border M&As to improve post-merger performance, especially in cases with high cultural and institutional distance. Available resources help mitigate resource conflicts and information asymmetries (Bozos et al., 2021). In addition, experience also enhances performance, and companies with multiple cross-border acquisitions have learned how to enter foreign markets, resulting in better performance (Bertrand & Betschinger, 2012).

CHAPTER 3. This chapter is divided into three main sections. The first one is devoted to understanding the identity of Italian companies that concluded cross-border M&As from 1985

until 2022 (due to Eikon data availability) and how their features change over time. Italian companies engaging in cross-border mergers and acquisitions have experienced a decreasing trend in average size over the last four decades. However, large companies such as Luxottica Group SpA, Eni SpA, Atlantia SpA, Carel Industries SpA, Autogrill SpA, Granarolo SpA, and Amplifon SpA remain acquirers that concluded more operations, with median EBITDA margin around 17.5%. In addition, since 2000, companies engaging in M&A operations abroad have become less indebted. Over 37 years, the percentage of acquisitions made in the top 8 countries has decreased from around 80% to about 62% due to more foreign acquisitions and less investment concentration. Companies now seek opportunities in culturally diverse countries despite post-merger integration challenges.

The second section aims to understand the importance of resources in those kinds of operations. Our analysis indicates that Italian companies engaging in cross-border M&As across different industries have higher resources than those remaining within the same industry. This conclusion is based on the current ratio, which measures organizational slack, i.e., available resources. We believe that management's reluctance to enter markets with less expertise is the reason for this. Entering a different industry is a riskier move, and having more resources can encourage management to pursue riskier acquisitions, as noted by Wan and Yiu (2009).

Our analysis also indicates that Italian companies reduce their international operations during economic downturns. Those who continue with these operations are usually better equipped with resources as they face increased uncertainty among market players, credit constraints, and reduced availability of cash. Companies with higher internal resources can better afford the risks associated with international operations, while others opt for safer alternatives. Wan and Yiu (2009) and Alessandri et al. (2014) have emphasized that downturns can offer "shopping" opportunities as financially struggling competitors may be willing to sell their businesses at competitive prices. According to Wan and Yiu (2009), an environmental shock, which may be seen as a catastrophe, could present unique business opportunities. Those who capitalize on these opportunities stand to benefit significantly. Organizational slack can improve business performance in times when external resources are scarce. Therefore, an environmental shock, perceived as a crisis, can present unique business opportunities.

In the final section of our empirical chapter, we aimed to investigate whether Italian parent companies experienced an increase in performance after engaging in cross-border M&As between 2016 and 2018, comparing them with ones that did not. We analyzed ROA, EBITDA margin, and the current ratio to measure profitability, marginality, and organizational slack. We compared these figures with Italian companies similar in size, profitability, marginality, and

industry but did not engage in cross-border M&As. To measure the causal effect of international acquisitions on business performance, we used a difference-in-differences approach combined with propensity score matching. The matching procedure helped us find a comparable company that shares similar pre-existing characteristics as those that have made an acquisition. In the final part of this section, we tested if the company's size and whether the acquisition was made in the same or a different industry affected our outcomes.

Our empirical findings show that cross-border M&As have no statistically significant effects under all aspects analyzed. However, there is an average decrease in ROA of -2.12%, EBITDA margin decrease of -0.98%, and current ratio decrease of -0.21% compared to companies that do not engage in international acquisitions in the three years after the acquisition. The negative impact is more pronounced when the acquirer is an SME company than when the acquirer is large. This could be due to the ability of large companies to manage the post-merger integration process better, or it could be attributed to the greater resources that large companies have at their disposal, which may be the key to managing integration processes successfully. Moreover, the negative impact is more pronounced when the transactions occur in different sectors than in the same sectors. This could be attributed to the fact that it is easier to achieve better synergies when transactions occur within the same industry. Additionally, it is important to note that investing in businesses from different sectors requires a greater allocation of resources, which could lead to a decrease in the current ratio.

MANAGERIAL IMPLICATION. This study adds to the existing literature on cross-border M&A buyer-side operations. We provide some managerial implications that could be beneficial for companies seeking to expand beyond their borders. Our analysis suggests that while cross-border M&A operations have become more affordable for companies of all sizes, not everyone is equipped to handle them profitably. Careful target selection and a clear post-merger integration plan can help ensure a successful acquisition. Additionally, timing and the availability of internal resources play a crucial role in taking advantage of new business opportunities. A forward-thinking approach could be a key factor in this regard. During times of economic downturns, companies are sold at lower multiples. Therefore, in such periods, companies that have reserved internal resources during prosperous times should consider pursuing cross-border M&A operations.

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GLOBAL M&As MARKET: TRENDS AND FIGURES

1.1 Introduction

In the global economy, mergers and acquisitions (M&As) are fundamental. The first section of the chapter provides an overview of current worldwide trends in mergers and acquisitions in general and cross-border takeovers in particular. Given that 2021 and 2022 were record years in terms of value and volume, the subject is especially relevant at this time. In the second part, we are going to analyze statistics and information related to the Italian M&A market in the last few years. The inbound, outbound, and domestic M&A trends in Italy are highlighted and compared in terms of values and volumes, major industries, major nations (target or acquiring) involved, and the main accounting data of bidders 12 months before the conclusion of the deal (Net sales, total assets, EBITDA margin, net debt over equity ratio and ROA).

The topic of outbound Italian M&A is crucial since it covers financial, legal, strategic, industry-specific, legal, and regulatory elements. The worldwide operations of Italian businesses, their internationalization strategy, and their effects on the Italian economy and larger business environment can all be better comprehended by understanding this phenomenon.

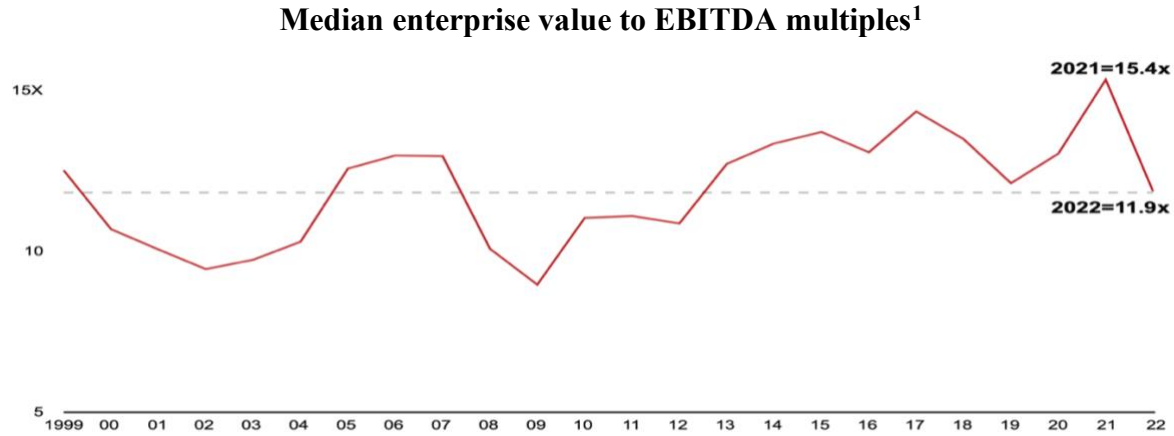
1.2 Global M&A trends

1.2.1 Value and volume of M&A deals Worldwide

The 2023 global M&A report released by Bain & Company has shed light on the current state of dealmaking activity. The report indicates that the first five months of 2022 recorded a continuation of robust dealmaking activity, following a successful 2021. However, the deal market experienced a setback on June 16, 2022, when an interest rate hike by the US Federal Reserve Bank, coupled with increased macroeconomic uncertainty, led to a decline in megadeals worth over $10 billion and a slowdown in smaller deals. As a result, the yearly M&A deal value dropped by 36% to $3.8 trillion. Despite this, the volumes only decreased by 12%, indicating the resilience and commitment of dealmakers. The consistent level of deal activity and a mix of deals of all sizes and scopes demonstrate that M&A remains essential for business

growth and profitability. However, dealmakers faced increasing volatility due to factors such as inflation, interest rates, capital availability, industrial policy, national security, geopolitical conflict, and supply chain unpredictability. The report also highlights the varying impact of rising interest rates on financial investors and strategic buyers. Private equity investors, who rely on debt financing, were more directly impacted by capital costs and limits, which had a negative effect on large deals. On the other hand, corporates have additional financing options beyond just leverage, particularly shares and cash, which offer protection from the short-term effects of fluctuations in interbank interest rates. Due to increasing discount rates, deal multiples decreased as corporations preferred short-term cash flows over long-term growth. Multiples dropped from all-time highs in 2021 to a median multiple of 11.9 times enterprise value to EBITDA, the lowest multiple in ten years (Figure 1). The high-growth technology, healthcare, and life sciences sectors saw the biggest declines (Figure 2). It's worth noting that this decline coincided with changes in market valuations, with the S&P 500 losing 20% of its value during that time. Deal makers responded to the volatility in deal multiples with lower valuations and changes to deal structure. In conclusion, the global M&A report by Bain & Company (2023) provides valuable insights into the current state of dealmaking activity. Despite the challenges posed by rising interest rates and macroeconomic uncertainty, dealmakers continue to demonstrate resilience and commitment. The report highlights the varying impact of rising interest rates on financial investors, strategic buyers and the decreasing deal multiples, particularly in high-growth sectors (Bain & Company, 2023).

Figure 1: Strategic M&A multiples fell to nearly 12 times from 2021's all-time high of 15.4 times

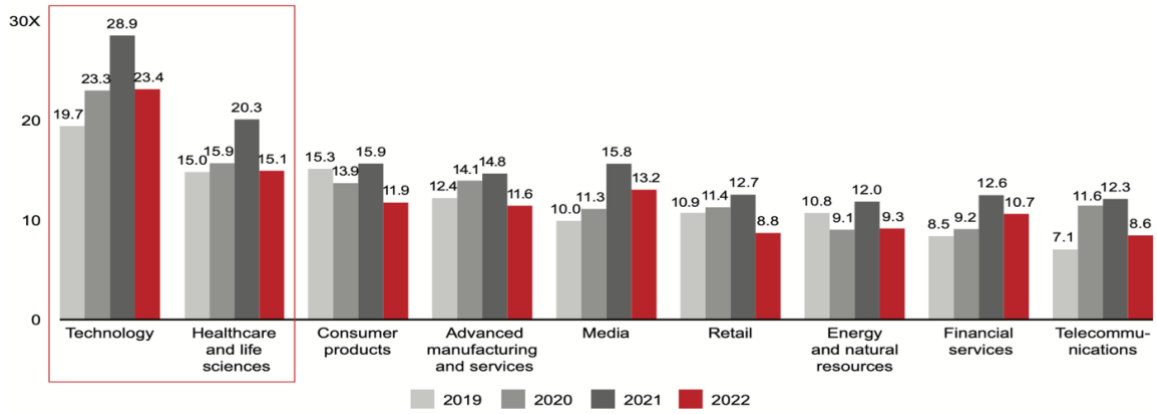


Source: Global M&A Report 2023, Bain & Company – Dealogic

[1] Median deal multiples for announced strategic deals in which valuation data was available; strategic deals include corporate M&A and PE portfolio add-ons

Figure 2: Technology and healthcare and life sciences multiples fell by more than five turns

Median enterprise value to EBITDA multiples per industry (strategic deals)



Source: Global M&A Report 2023, Bain & Company – Dealogic

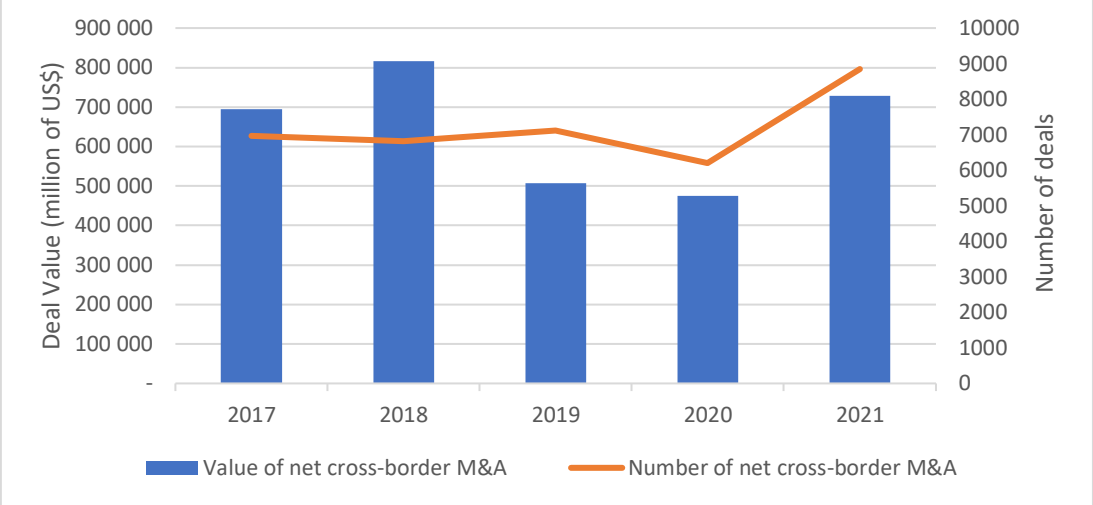
1.2.2 Cross-border perspective

The number of cross-border deals in recent years has constantly increased, particularly in the previous five years. We can see how there was a contraction in 2020 due to the COVID-19 pandemic and a brilliant year the one after; probably, we can appreciate a great result in 2021 because many transactions projected for 2020 have been delayed in 2021. The boom of 2021 is also due to loosening financing conditions and major infrastructure stimulus packages (for example, PNRR for the Italian market) (UNCTAD World Investment Report 2022). The performance of the M&A market in 2022 reflects the overall unpredictability. The first-quarter M&A activity was comparable to the prior year, with 4,100 deals executed each month on average, valued at $400 billion. However, following that, the market began to slow down (around 3,700 trades worth USD300 billion per month) due in part to supply problems brought on by the Russia-Ukraine war and lockdowns the Chinese government implemented in the regions still affected by Covid 19 pandemic. This pattern persisted in the second half of the year, with volumes declining by 17% and values reducing by 26% compared to the year's first half. Global M&A acquisitions in 2022 totaled USD3,550 billion, a 20% decline from 2021, but this was still better than the outcomes in 2019 and comparable to 2018. The 43,235 completed transactions are the second-best result ever, behind the record-breaking over 49,000 deals conducted in 2021. This accomplishment demonstrates how M&A deals are still crucial in companies' growth strategies. It is essential to underline that the decline in M&A activity primarily hit domestic transactions, down 23% in value and 15% in volume.

In contrast, cross-border transactions experienced a more modest decline, losing 10% in value after a banner year in 2021 but remaining relatively stable (-4%) (KPMG, 2022). Furthermore,

as stated in the UNCTAD World Investment Report 2021[2], 2021 is been the year in which the number of net cross-border M&As deals reached around 9000 transactions, the higher number in the last years, looking at the net deal value, instead, the higher data was in 2018 (Figure 3). In the five years, the net deal value had a CAGR in percentage of 1%; instead, the net number of deals increased on average of 5% year over year.

Figure 3: Value and number of net cross-border M&A, 2017-2021



Source: Personal elaboration using UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

The increase in the number of deals in five years is due to improvements in the primary and service sectors; the manufacturing sector has remained more or less constant over the years. The positive trend is pushed up by sectors such as information and communication (CAGR 12,4%), utilities, CAGR 10,1%, agriculture (CAGR 20,8%), health services and trade (CAGR 8,5% and 6,4%). From the value side, the Compounded Average Growth Rate was lower, i.e., 1%. The manufacturing sector has seen a drop with a CAGR of around -6%, the same but the opposite sign happened in the service sector. Instead, the primary industry grew by 2,8% over those years (Table 1). The industries that registered positive trends in the net value of the cross-border deal were basic metal and metal products, automotive, trade, transportation and storage, information and communication, and professional services. On the opposite side, industries that are facing a downturn are food, beverages and tobacco, chemicals, machinery and equipment, utilities, construction, and hospitality.

[2] The World Investment Report 2021 (WIR21) and its web annex tables present all values and numbers for cross-border M&As on a net basis. This means that the calculations take into account the sales of companies in a host economy to foreign multinational enterprises (MNEs), but exclude sales of foreign affiliates that are already owned by other foreign MNEs. Additionally, the value (number) of divestments, or sales of foreign affiliates to domestic firms, is subtracted. The total figures do not include financial centers located in the Caribbean.

Table 1: Value and number of cross-border M&A sales, by sector/industry, 2017–2021

Sector/Industry	2017	2018	2019	2020	2021	CAGR %
			Number of cross-border M&A sales			
Primary	550	406	433	658	639	3,0%
Manufacturing	1 690	1 599	1 633	1 136	1 674	-0,2%
Services	4 727	4 816	5 052	4 407	6 533	6,7%
Total	**6 967**	**6 821**	**7 118**	**6 201**	**8 846**	**4,9%**
			Value of cross-border M&A sales (Millions of dollars)			
Primary	24 482	39 089	36 508	25 343	28 110	2,8%
Manufacturing	326 811	307 097	243 420	228 281	238 905	-6,1%
Services	342 669	469 539	227 468	221 240	460 866	6,1%
Total	**693 962**	**815 726**	**507 396**	**474 864**	**727 880**	**1,0%**

Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

Europe and Asia were the ones who benefitted more from the increase worldwide in the value of net cross-border M&As, in particular, the former had a positive trend with a CAGR of 1,8%, around double of worldwide one. The latter, instead, had an increment of 6,6% on average every year. However, although the volume in Asia and North America in 2021 reached an all-time record, in Europe the maximum was reached in 2018 (Table 2).

Table 2: Value of net cross-border M&As by region/economy of seller, 2017–2021

(Millions of dollars)

Region/economy	2017	2018	2019	2020	2021	CAGR%
World	693 962,0	815 725,7	507 396,1	474 864,0	727 880,0	**0,96%**
Europe	236 040,2	381 101,6	200 233,5	259 595,9	257 586,1	**1,76%**
North America	299 084,6	223 734,0	182 515,1	109 342,4	313 426,8	**0,94%**
Other developed economies	53 276,4	87 283,4	45 719,8	19 642,7	44 069,8	**-3,72%**
Africa	3 451,8	1 569,5	5 834,8	3 334,0	- 1 514,5	**-184,81%**
Asia	72 574,3	83 111,2	49 147,7	75 136,9	99 894,0	**6,60%**
Latin America and the Caribbean	29 534,8	39 147,9	23 625,5	7 807,8	8 030,1	**-22,93%**
Oceania	-	- 222,0	319,6	4,4	6 387,7	

Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

Looking at the number of deals side, the picture changes a bit, i.e., we can see how in all economies the number of deals increase, except for Asia which decreased with an average of around 4%, and Latin America remain constant over the years.

The continent that had the higher number of net cross-border M&As was Europe, which in 2021 reached an all-time high (Table 3).

Table 3: Number of net cross-border M&As by region/economy of seller, 2017–2021

(Number of deals)

Region/economy	2017	2018	2019	2020	2021	CAGR %
World	6 967	6 821	7 118	6 201	8 846	**4,89%**
Europe	3 133	3 362	3 587	2 971	4 736	**8,62%**
North America	2 190	1 823	1 788	1 907	2 405	**1,89%**
Other developed economies	517	597	574	455	697	**6,16%**
Africa	116	89	140	87	130	**2,31%**
Asia	723	639	717	567	587	**-4,08%**
Latin America and the Caribbean	288	312	305	210	287	**-0,07%**
Oceania	-	- 1	7	4	4	

Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

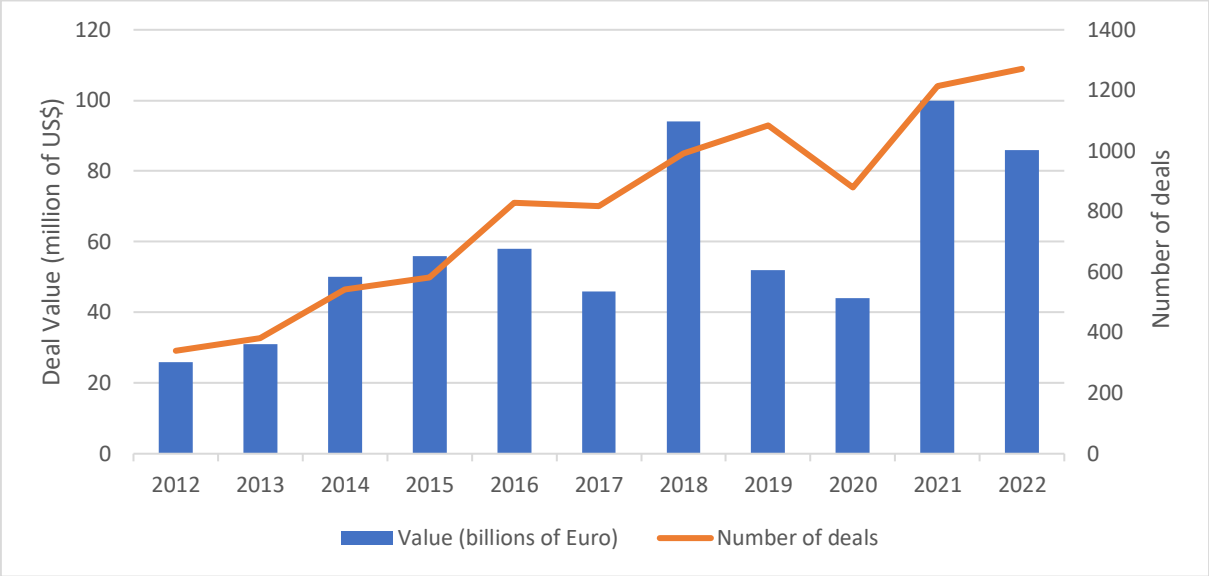
According to the KPMG Merger and Acquisition Report 2022, 2022 was a year with a market value of USD 1,691 billion and 15,589 completed deals, down 30% and 11%, respectively, from one year earlier (M&A completed, target), the Americas were the main cause of the slowdown in M&A operations worldwide. The Americas continued to keep the top spot internationally, but their share of the global M&A market's value fell below 50% for the first time since 2012 (just under 48% compared to 55% in 2021). On the other hand, despite the effects of the Russia-Ukraine war, the European M&A market remained mostly stable. Deal values climbed slightly to USD 1,053 billion (+4%), accounting for 30% of the worldwide total, while the number of closed agreements constituted the second-best performance ever at 15,280, almost equal to the accomplishment of the Americas. The results of the major European nations varied, with Spain (+20%, -26% in value), Italy (+5%, -14% by value), and France (+5%, -29%, respectively) experiencing an increase in volume, Germany (-1%, -43%) maintaining stability, and the United Kingdom (-8%, -12%) experiencing a decline in M&A activity. The gains and records set in 2021 were canceled out, and the M&A market in Asia Pacific stagnated with deal values of USD 700 billion (-16% from 2021) and 10,932 completed deals (-24%), reverting to levels from 2020. The extra contraction in M&A deals agreed in China (-34% and -57%, respectively) and Japan (-44% by value, -9% by volume) had an impact on this area's performance. The government's zero-Covid policy, which involved widespread lockdowns in the nation's major cities and slowed the economy, had an impact on the latter market. In contrast

to this trend and despite having a still-small market, India concluded more agreements than ever before (1,870, up 24% from 2021; more than 60% of these deals were domestic; deal values were largely unchanged; they were very near to the record high of the previous year, USD84 billion). The Indian economy is sizable and expanding quickly (the IMF projects an increase in Indian GDP of 5.9% in 2023, up from the +6.8% achieved in 2022 and compared to China's respective increases of +5.2% and +3.0%). The Indian M&A industry is one of the most promising in the near future due to its large consumer base and developing industries like technology, e-commerce, and renewable energies. Africa and the Middle East likewise experienced a decline in M&A operations in terms of value, down 34% to USD106 billion after their record-breaking performance of 2021 and four years of unbroken growth, although the decline in number was less severe (-4%, 1,434 completed deals).

1.3 Italian M&A market

The Italian M&A market outperformed expectations after a strong 2021 and a slow beginning to 2022, and thanks to modest volume improvements, set a new record for the total number of closed agreements. Due to the operators' resilience, the increase in cross-border transactions, the steady presence of financial investors, and Private Equity funds that supported numerous mega deals and sector combinations, mergers and acquisitions remain a key component of company strategies and continue to gain momentum. Despite the generally unfavorable environment, M&A activity in Italy finished 2022 with a total deal value of €86.4 billion, the third-best result since 2007. This is despite a 14% decline from the previous year. Despite the little improvement over the previous year (+5%), the 1,271 completed agreements set a new high dating back to 1988 (Figure 4). This growth was less pronounced than that in Spain (+20% in terms of volume), but it was still better than Germany and the UK (-1% and -8%, respectively) and on par with France. The performance of the Italian market underlines once more how businesses are turning more and more to M&A deals to carry out their goals, accelerate transformations, expand internationally, and strengthen their competitive advantages. Italian businesses not only make acquisitions but also engage in M&A more frequently in order to form partnerships, draw in new investors so they can take advantage of the economies of scale promised by their entry into a larger, more organized, and international group, join a chain or association of businesses so they can consolidate more dispersed industries, or share knowledge and expertise. They carry out this activity on domestic as well as international markets. (KPMG, 2022).

Figure 4: Value and number of deals in Italian M&A market, 2012 - 2022



Source: Personal elaboration using data from KPMG Corporate Finance

Moreover, contrary to the global trend, the volume of M&A activity in Italy increased by 13.5% in the first five months of 2023. The presence of medium-sized private equity funds targeted at the local market, the presence of middle-market enterprises in the Italian industrial fabric, and the prospects for aggregation and consolidation through "platform deals" are all factors contributing to this growth (PwC, 2023). When the target firm includes the complete value chain of the acquirer with little to no overlap, the transaction is referred to as a "platform deal." Such acquisitions include new capabilities in the latter stages of the value chain, like manufacturing, sales, and support, and new activities in the early stages of the value chain, like R&D and product design. Usually, the time horizon of this kind of operation is long, and the target size and age are large and established because it needs to provide a center of gravity for activity in a new domain. The acquirer with those M&As wants to create a new line of business. The potential synergies they would like to gain are low to medium as initial integration is very superficial, and significant synergy realization may happen only later. The required change is radical (e.g., new product domain, new customers), and the post-merger integration (PMI) approach is preservation (Brueller et al., 2014). In order to properly realize the intended appreciation, integration planning, and implementation must take place after an M&A agreement has been signed. This is referred to as Post Merger Integration (PMI). Absorption, symbiosis, preservation, and holding are a few examples of integration tactics that can be used depending on the need for organizational autonomy and the necessity for strategic interdependence. According to the preservation strategy, the acquired company maintains its

independence and only receives a minimal amount of integration from the acquired company. There is no novelty, organizational structure and methods remain maintained, and changes are kept to a minimum. High levels of autonomy and low levels of interdependence are required. To guarantee success, the source of acquired benefits must be preserved. The purchased company is run independently, and fundamental values are developed through risk-sharing, general managerial ability, or maximal cash transfer. Learning from the acquired company is frequently the goal of acquisitions (Schönreiter, 2018).

In 2022, cross-border M&As are 52% in terms of the number of completed deals, with 656 deals and a total value of €49,7 billion, equal to 57% of the total. In particular, operations in the Italian market are divided as follows: 219 outbound M&As with a value of €19,1 billion, 437 inbound M&As for €30,6 billion, and 615 domestic M&As whose worth is €36,7 billion (Table 4).

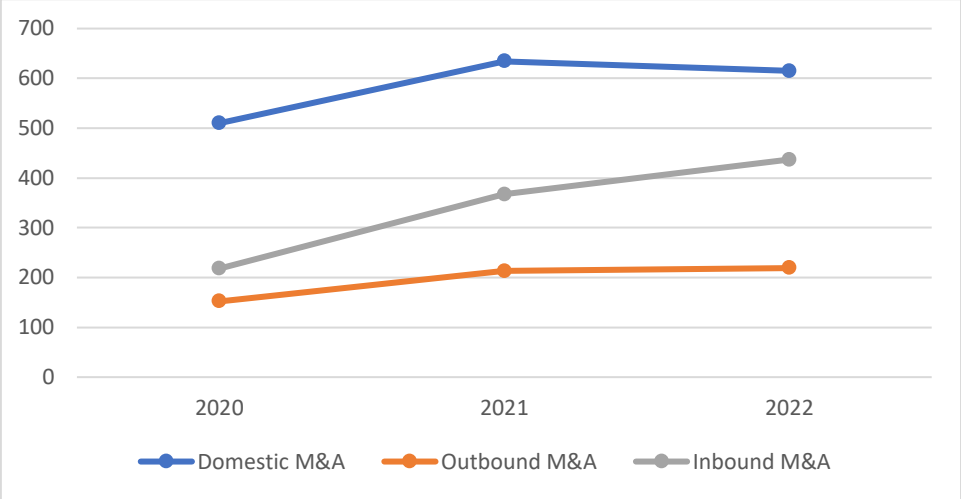
Table 4: Domestic, Outbound, Inbound M&A in the Italian market 2020 – 2022

Domestic M&As				
	Number of deals	%	Value (billions of Euro)	%
2020	510	58%	16,30 €	37%
2021	634	52%	25,90 €	26%
2022	615	48%	36,70 €	42%
Outbound M&As				
	Number of deals	%	Value (billions of Euro)	%
2020	152	17%	22,00 €	50%
2021	213	18%	57,20 €	57%
2022	219	17%	19,10 €	22%
Inbound M&As				
	Number of deals	%	Value (billions of Euro)	%
2020	218	25%	5,70 €	13%
2021	367	30%	17,20 €	17%
2022	437	34%	30,60 €	35%
Cross border vs Domestic in 2020				
Cross border	370	42%	27,70 €	63%
Domestic	510	58%	16,30 €	37%
Total	880	100%	44,00 €	100%
Cross border vs Domestic in 2021				
Cross border	580	48%	74,40 €	86%
Domestic	634	52%	25,90 €	30%
Total	1214	100%	100,30 €	100%
Cross border vs Domestic in 2022				

Cross border	656	52%	49,70 €	58%
Domestic	615	48%	36,70 €	42%
Total	1271	100%	86,40 €	100%

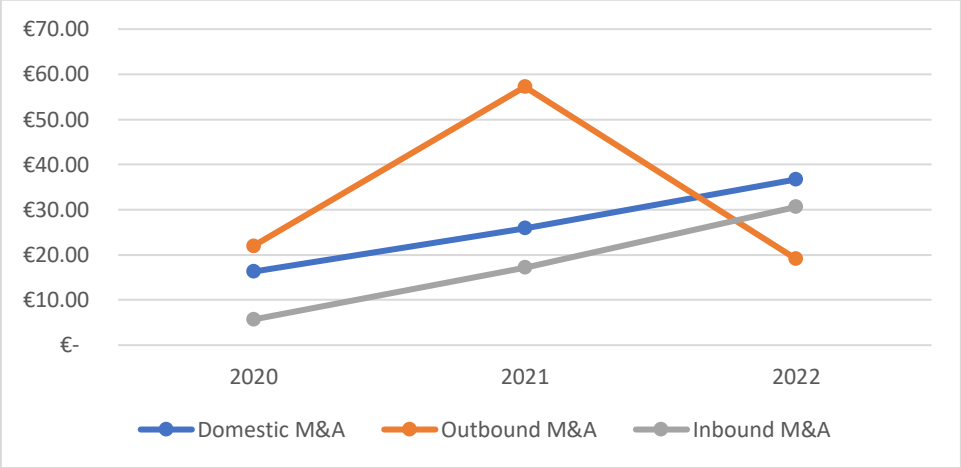
Source: Personal elaboration using data from KPMG Corporate Finance

Figure 5: Number of M&A deals in the Italian market 2020 – 2022



Source: Personal elaboration using data from KPMG Corporate Finance

Figure 6: Value of M&A deals in the Italian market 2020 – 2022 (Billions of Euros)



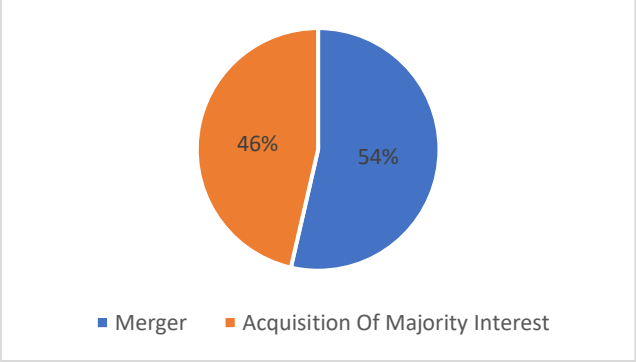
Source: Personal elaboration using data from KPMG Corporate Finance

1.3.1 Outbound Italian M&As

Outward Italian M&A activity is becoming increasingly relevant in the Italian M&A industry. This is a phenomenon that must be analyzed and understood properly. To study that, we use data from Refinitiv Eikon Datasets for a time period of 5 years, from 2018 until 2022. We include only transactions with a deal status "Completed" and form of the deal "Acquisition of majority interest" and "Merger", we are talking about companies that bought more than 50%

of the target shares, this way, we focus on companies' trend where they have the power to influence target's strategies and decisions. After this screening, we ended up with 319 deals completed. The form of the deal preferred most by the Italian company that made "shopping" abroad is a "merger" but it is in line with the "acquisition of majority interest", 54% versus 46% (Figure 7).

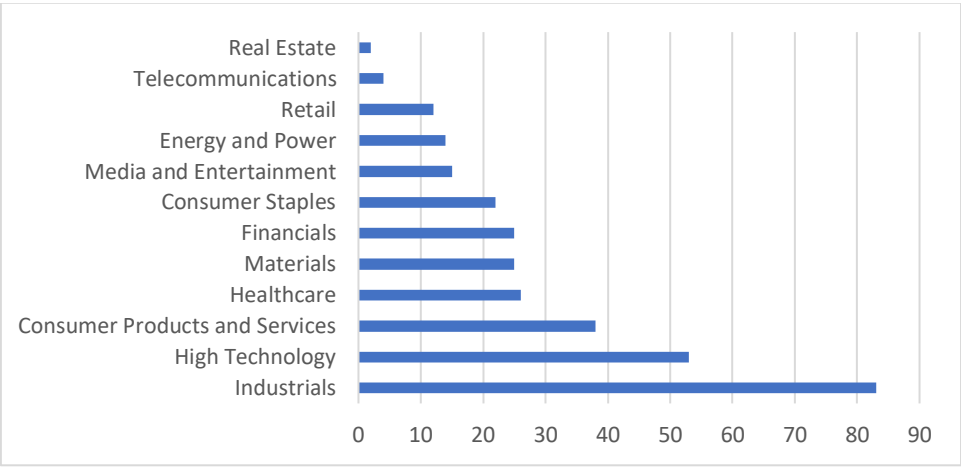
Figure 7: Outbound Italian M&As, form of the deal 2018 - 2022



Source: Elaborations on data from Refinitiv Eikon Datasets

During those 5 years, the target macro industries privileged by Italian companies, in terms of the number of transactions are "Industrials", with 26% of the deals, "High Technology", 17% over the total, and finally, "Consumer products and service" with a percentage of 12%, the sum of them reach the 55% of the total (Figure 8).

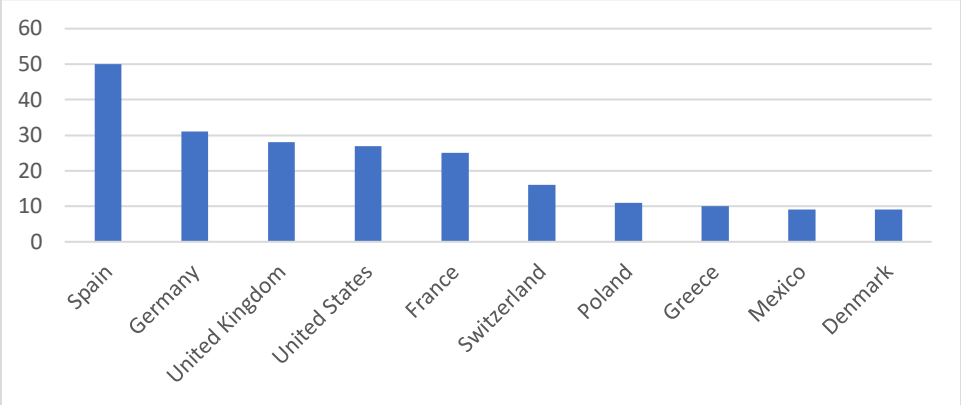
Figure 8: Outbound Italian M&As, target macro industry 2018 - 2022



Source: Elaborations on data from Refinitiv Eikon Datasets

The nations chosen by Italian firms are typically European countries, but in the top 10, we can see even the United States and Mexico. In particular, the most appreciated country is Spain, with 16% of transactions, Germany, 10%, and the UK, 9% (Figure 9).

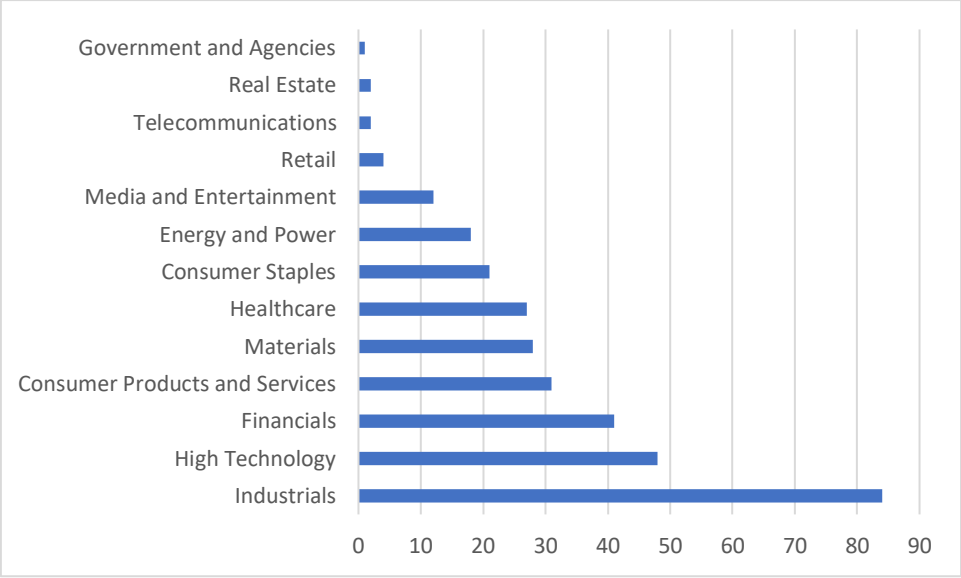
Figure 9: Outbound Italian M&As, top 10 target nation 2018 – 2022 (number of deals)



Source: Elaborations on data from Refinitiv Eikon Datasets

From the Acquiror macro industry side, as in the target side, the higher number of the deals come from the industrials sector, 26%, high technology industry, 15%, and different from the target side we can see how the 13% of the transaction are made by Italian companies that operate in the financial sector (Figure 10).

Figure 10: Outbound Italian M&As, acquiror macro industry 2018 – 2022 (number of deals)



Source: Elaborations on data from Refinitiv Eikon Datasets

In the last five years, the median of Italian companies that made out-bonding M&As was €135 million with total assets of € 250 million, EBITDA margin of around 13,5%, Return on Asset (ROA) of 3,8%, and net debt to equity ratio of 1,16. According to the definition of the Thomson Reuters Eikon database, the acquirer's net debt is calculated by "adding the acquirer's straight debt, short-term debt, and preferred equity and subtracting cash and marketable securities" (Table 5).

We take into consideration companies that have data available 12 months ending the date of the most recent financial information before the announcement of the transaction, so the balance sheets are affected by the previous acquisitions but they are not influenced by the one the company is going to complete.

Table 5: Outbound Italian M&As, balance sheets data 2018 – 2022

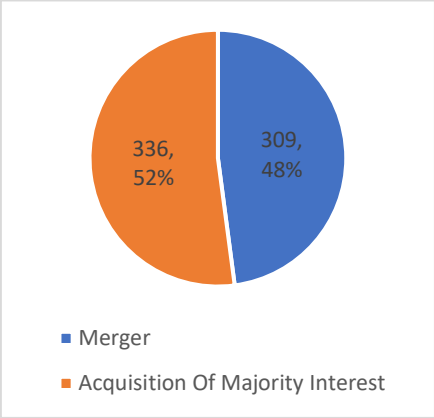
	Acquiror Net Sales (EUR, Millions)	Acquiror Total Assets (EUR, Millions)	Acquiror EBITDA (EUR, Millions)	Acquiror Common Equity (EUR, Millions)	Acquiror Net Debt (EUR, Millions)	Acquiror Net Income (EUR, Millions)	EBITDA margin	D/E	ROA
Mean	2.868	11.100	475	1.219	931	112	12,67%	-17,00	5,28%
Median	136	250	16	121	7,95	7,50	13,52%	1,16	3,78%
Sta. Dev.	12.479	66.514	1.881	4.905	4.570	441	0,41	190,42	0,11
Max	87.947	529.254	13.750	48.181	37.869	3.358	59,32%	834,37	66,06%
Min	0,00	0,00	-52,01	0,00	-7.240	-544	-456,77%	-1.839,43	-41,68%

Source: Elaborations on data from Refinitiv Eikon Datasets

1.3.2 Inbound Italian M&As

In order to analyze inward Italian M&A activity I adopted the same search criteria, in this segment in 5 years there were been 645 completed deals. The majority of them, 52%, were "Acquisition of majority interests", instead the remaining 48% is composed of mergers (Figure 11).

Figure 11: Inbound Italian M&As, form of the deal 2018 - 2022



Source: Elaborations on data from Refinitiv Eikon Datasets

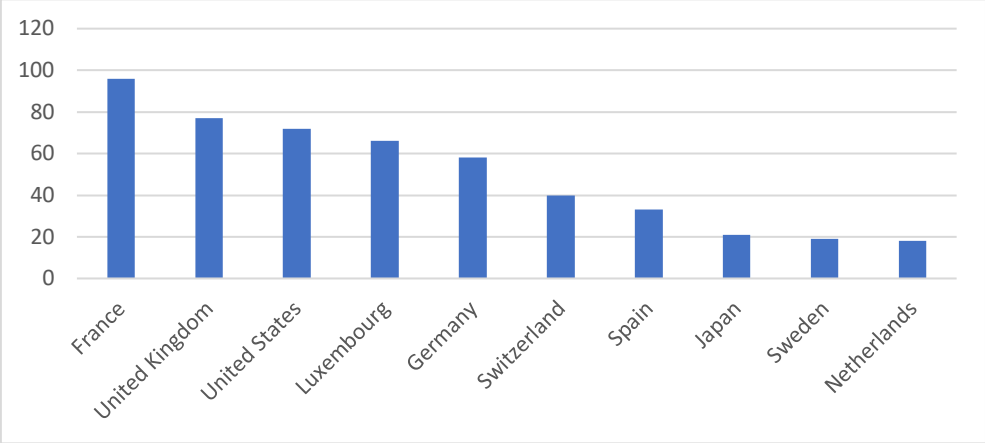
Countries that prefer Italy to do "company shopping" are France, the United Kingdom, and the United States, with a percentage of transactions of 15%, 12%, and 11% respectively. It is important to underline how we can find Luxemburg at the fourth place of the top ten, with 10% of transactions. The company from Luxembourg, in five years completed 66 deals, and 57 of them are made by companies that operate in the financial sector (Figure 12).

A combination of structural elements allowed for a quick and flexible implementation of the UCITS (Undertakings for the Collective Investment in Transferable Securities) Directive of 1985[3] and the development of the investment fund business ever since Luxembourg became one of the top investment fund domiciles. Luxembourg had an advantage as a long-standing offshore jurisdiction and international financial center. Importantly, European and domestic legislation and regulation prohibited excessive separation between international financial centers and offshore jurisdictions serving investment funds, necessitating that the domicile be accompanied by the execution of (at least) some fund management, administrative, and custodial functions, with investment advisory activities permitted to be carried out elsewhere. This legal geography of the European investment funds, with its regulations governing location and co-location, played a significant role in determining its economic geography, with Luxembourg emerging as one of the top domiciles and hubs for the investment fund business (Wójcik et al., 2020).

[3] Investment funds have access to EU markets under the UCITS directives, which provide investment funds with a single European passport. The national rules and regulations of the nations where investment funds are domiciled apply to them in the EU. These may interpret the directives and EU-wide legislation differently. It makes sense to assume that investment funds will be registered in countries with favorable laws, regulations, and taxes. That said, it is always possible for the same jurisdictions to serve multiple functions for investment funds. Economies of agglomeration, in which some functions are situated in the same country because other functions are already there, increase this co-location enforced by law (Wójcik et al., 2020).

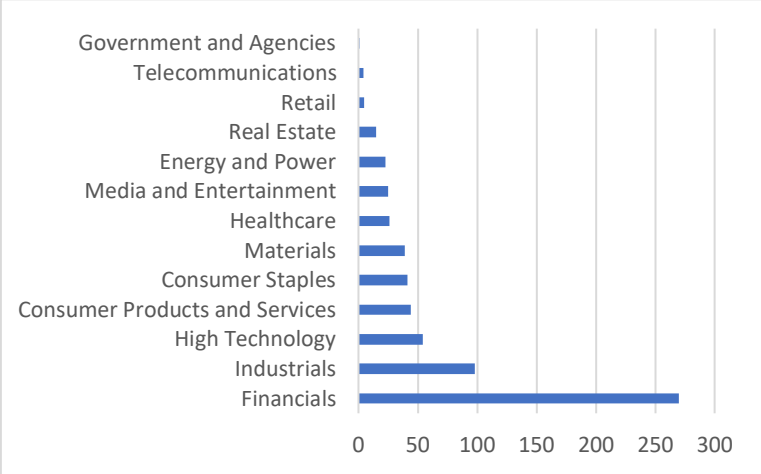
Moreover, the financial sector is the most important Acquiror macro industry, with 270 operations made from those actors in 5 years, equal to 42% of total transactions. In the second and third place, we can see the industrial sector, 15%, and High technology, 8% (Figure 13).

Figure 12: Inbound Italian M&As, top 10 acquiror nation 2018 - 2022 (number of deals)



Source: Elaborations on data from Refinitiv Eikon Datasets

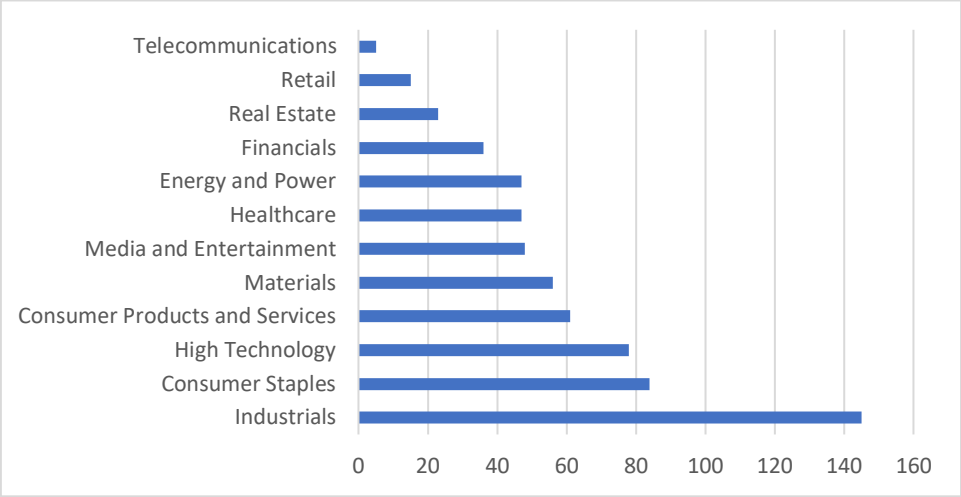
Figure 13: Inbound Italian M&As, acquiror macro industry 2018 – 2022 (number of deals)



Source: Elaborations on data from Refinitiv Eikon Datasets

From the Target macro industry side, as in the acquirer side, in the top three, there are the industrials sector, 22%, and the high technology sector, 12%, and different from the acquirer side, we can see how the 13% of the transaction are made in the consumer staples field (Figure 14).

Figure 14: Inbound Italian M&As, target macro industry 2018 – 2022 (number of deals)



Source: Elaborations on data from Refinitiv Eikon Datasets

In the last 5 years, the median of foreign companies that made in-bonding M&As was €321 million with total assets of € 377 million, an EBITDA margin of around 13,5%, a ROA of 4,77%, and net debt to equity ratio of 0,01 (Table 6). We consider companies that have data available 12 months ending the date of the most recent financial information before the transaction's announcement.

Table 6: Inbound Italian M&As, balance sheets data 2018 - 2022

	Acquiror Net Sales (EUR, Millions)	Acquiror EBITDA (EUR, Millions)	Acquiror Total Assets (EUR, Millions)	Acquiror Common Equity (EUR, Millions)	Acquiror Net Debt (EUR, Millions)	Acquiror Net Income (EUR, Millions)	EBITDA margin	D/E	ROA
Mean	2736	587	7370	1161	1198	234	-20,03%	0,35	10,58%
Median	322	41	377	182	1,97	18,16	13,44%	0,01	4,77%
Stan Dev.	8783	3127	39650	3941	4958	1076	4,15	2,85	0,59
Max	80573	38378	421116	36772	49752	14026	147,66%	18,96	566,38%
Min	0,00	-297	0,00	-20936	-3018	-684	-6048,48%	-27,38	-546,06%

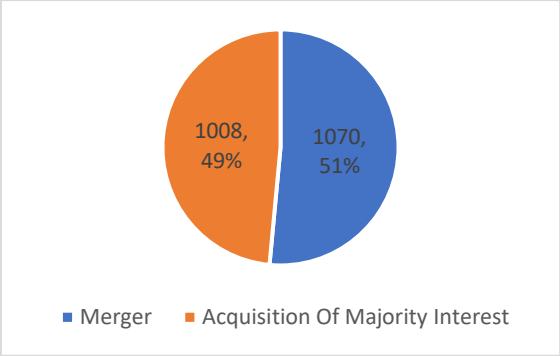
Source: Elaborations on data from Refinitiv Eikon Datasets

1.3.3 Domestic Italian M&As

Regarding domestic M&A transactions, the search criteria used are the same for inbound and outbound Italian M&As. We are talking about 2081 operations made in Italy from the 1st of January 2018 until the 31st of December 2022 versus 319 outbound and 645 inbound.

The favorite form of the deal is “Merger” with 51% against 49% of “Acquisition of Majority Interest” (Figure 15).

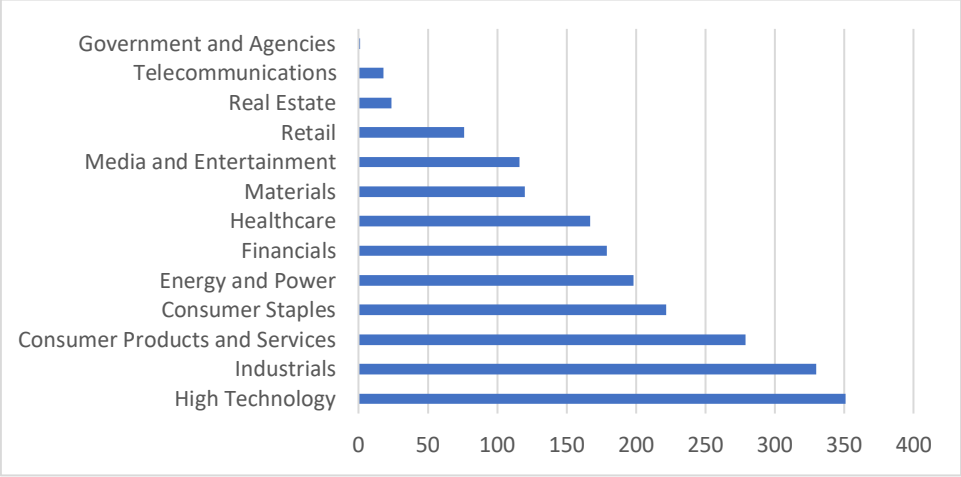
Figure 15: Domestic Italian M&As, form of the deal 2018 - 2022



Source: Elaborations on data from Refinitiv Eikon Datasets

During those five years, the target macro industries privileged by Italian companies for domestic transactions, in terms of the number of transactions are "high technology", with 17% of the deals, "industrials", 16% over the total, and finally, "consumer products and service" with a percentage of 13% (Figure 16).

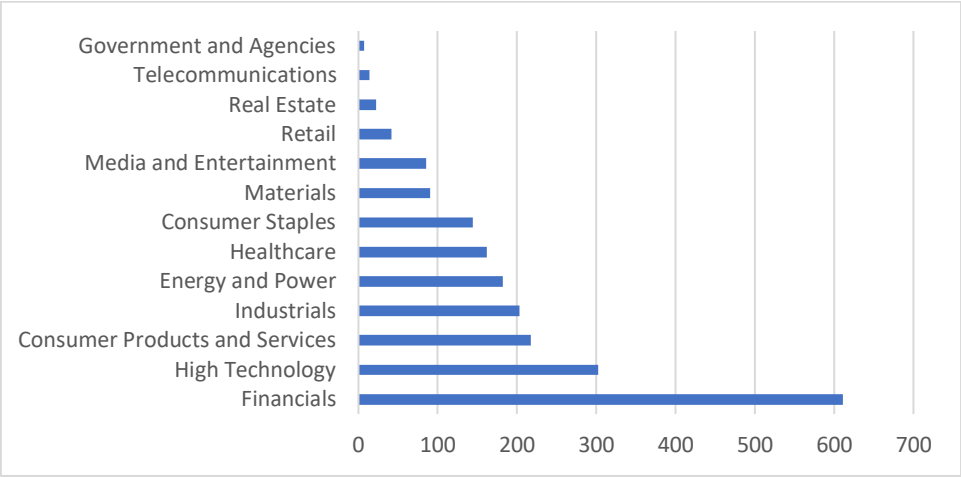
Figure 16: Domestic Italian M&As, target macro industry 2018 – 2022 (number of deals)



Source: Elaborations on data from Refinitiv Eikon Datasets

From the Acquiror macro industry side, the higher number of deals come from the financials sector, 29%, the high technology industry in the second place, 15%, and the third place. We can see how 10% of the transactions are made by Italian companies that operate in the consumer products and services sector (Figure 17).

Figure 17: Domestic Italian M&As, acquiror macro industry 2018 – 2022 (number of deals)



Source: Elaborations on data from Refinitiv Eikon Datasets

In the last five years, the median of foreign companies that made domestic M&As was €54 million with total assets of € 134 million, EBITDA margin of around 11,23%, Return on Asset (ROA) of 3,23%, and net debt to equity ratio of 0,12 (Table 7). We consider companies that have data available 12 months ending the date of the most recent financial information before the transaction's announcement.

Table 7: Domestic M&As, balance sheets data 2018 - 2022

	Acquiror Net Sales (EUR, Millions)	Acquiror Total Assets (EUR, Millions)	Acquiror EBITDA (EUR, Millions)	Acquiror Common Equity (EUR, Millions)	Acquiror Net Debt (EUR, Millions)	Acquiror Net Income (EUR, Millions)	EBITDA margin	D/E	ROA
Mean	691	5.311	381	542	1.419	51,29	3,49%	0,41	4,64%
Median	55	134	6,90	40	2,27	2,93	11,23%	0,12	3,23%
Stan. Dev.	4.146	47.389	7.893	3.002	18.035	342	1,92	1,73	0,22
Max	84.104	844.982	241.183	53.033	489.057	4.482	4780,00%	32,92	606,26%
Min	0,00	0,00	-2.651	-83,53	-4.299	-3.503	-1660,32%	-5,43	-49,42%

Source: Elaborations on data from Refinitiv Eikon Datasets

1.4 Conclusions

What emerges from the investigations of the most relevant reports in the M&A industry made by KPMG, Bain&Company, Pwc, McKinsey, and UNCTAD and from the analysis of the Italian M&A market made with data from the Refinitiv Eikon dataset is that operation of M&A are more and more used as a strategic instrument from middle market, it is not anymore a

business just for a big company with resources, even if the weight of big deals is still relevant, and when there are years in which they are sluggish, the total value is lower. However, the number of transactions remains constant and in an upward trend. This is valid for the Italian market and globally, too.

Europe is becoming a leader in the M&A market; the results of the last years suggest it is more and more influential globally in terms of deals and values achieved close to US results.

The role of venture capitalists and private equity funds is of fundamental importance for both the global and Italian markets; as we can observe in the Italian market, 42% of the inbound acquisitions, 29% of the domestic transactions, and 13% of the outbound ones are made by them. However, since their characteristic is to use leverage in order to complete deals, they are highly exposed to the risk of increasing debt interests.

Globally speaking, domestic operations have been more affected by the decline in M&A activity than cross-border ones, which have suffered a loss of 10% in value and a substantial amount of stability in the number of transactions (-4%), while domestic operations have seen a loss of 23% in value and 15% in volumes. In contrast to the 46% and 35% generated in 2021 (39% and 32% in 2020), the incidence of cross-border M&A has further increased, contributing to half of the worldwide turnover and 38% of all closed transactions.

In 2022, the Italian market set a new record with 656 cross-border transactions completed, accounting for 52% of the total volumes. In 2021, the volumes had already increased following the setback caused by the pandemic in 2020, which had halted a decade of continuous growth. The market has further increased by 13% (KPMG, 2022).

Focalizing the attention on the Italian market, we can see how the majority of the transactions in the last five years are made domestically, with 2081 deals against 645 inbound and 319 outbound, in particular, the picture that emerges from the data of Refinitiv Eikon is how Italian companies that in recent years have purchased other domestic businesses are small on average, with net sales in the 12 months before the deal amounting to €55 million and total assets of €134 million, have good margins and sustainable debt.

Unlike them, those that go beyond the border have an average size double, slightly marginally higher, but are also more indebted, with a net debt-to-equity ratio of 1.16.

Finally, foreign companies that buy Italian companies are, on average, larger than Italian companies that come across extraordinary financial transactions, with net sales in the 12 months pre-transaction that has a median value of €321 million and a total asset of €377 million, EBITDA margin in line with the companies that make outbound M&As and are little indebted.

Some authors wonder how the increase in foreign acquisition, especially of famous brands, may have an impact on public opinion and, in particular, may give rise to a feeling of fear as a result, for example, of the possible relocation of production facilities and consequently of job cuts (Resciniti et al., 2015). However, this narrative must be answered with the objectivity of the data that tells us that it is true that foreign investors appreciate the Italian market, but that compatriots have bought the vast majority of Italian companies in the last five years, so the data tells us that it is not a real "state snatch". Moreover, there is a substantial number of companies that in recent years have exposed themselves across borders. This number is increasing more and more, and is a trend that deserves to be analyzed, understood, and studied, trying to understand if the Italian companies that yesterday have chosen to make acquisitions in Italy tomorrow will prefer the foreign country if the choice to focus in the Italian market is dictated by a resource problem or a lack of managerial ability.

CROSS-BORDER M&As AND PERFORMANCE EFFECT ON THE BIDDER COMPANY: THE STATE OF THE ART

2.1 Introduction

This chapter aims to examine the literature on the performance of post-merger and acquisition operations and the significance of resources in such operations. We will explore whether post-acquisition performance improves in terms of productivity, profitability, efficiency, size/growth, investments, and financial health. We will also consider whether domestic or foreign investments are more beneficial, the impact of cash or stocks, and whether specific industries benefit more from M&As. Lastly, we will analyze the economic theories behind and the effect of organizational slack on post-M&A performance.

In the first paragraph, we will present the state of the art by analyzing the categories where the studies were conducted, the benchmarks utilized, the empirical methodologies adopted, and the main results achieved. In the second paragraph, since there is discordance in the literature regarding the improvement in post-merger performance, we will address the topic by discussing the costs and benefits of going abroad, the Resource-Based View (RBV) theory as an answer for going international through M&As, and the role of organizational slack in the success of cross-border operations.

We have examined several works from influential international business and economics journals worldwide, focusing on the bidder side of cross-border M&As.

2.2 Performance post-acquisition

2.2.1 Literature review and performance measures

To gather appropriate literature, we have decided to query the most relevant database for academic research covering topics in management, finance, accounting, administration, international economics, etc. The methodology adopted was to use specific keywords related to my research, such as “cross-border”, “accounting”, “performance”, “M&A”, “acquisition”

and “bidder” in the database and search engines such as “Scopus”, “Business Source Ultimate (EBSCO)”, “Galileo Discovery” and “Google scholar”.

After analyzing various works on performance post-M&As, through an analysis made looking at abstracts, we narrowed our focus to managerial papers that discuss accounting performance after cross-border M&As from the bidder's perspective. We excluded financial papers that focused on returns after acquisitions, studies on cross-border M&As that discussed the accounting performance of the target side, and papers that examined bidder account performance but only for domestic acquisitions, not outboard M&As.

After this process, we ended up with 15 papers from 1992 until 2020, where authors focalize their attention on companies from the US (Healy et al., 1992, Ghosh, 2001, Moeller & Schlingemann, 2005) Malaysian (Rahman & Limmack, 2004), India (Mantravadi & Reddy, 2008), Uk and France (Stiebale & Trax, 2011, Guest et al., 2012, Adedeji & Ayoush, 2017), Russia (Bertrand & Betschinger, 2011), China (Edamura et al., 2014), Pakistan (Ashfaq et al.2014, Rashid & Naeem, 2016), ASEAN countries, i.e., Southeast Asian Nations (Nicholson et al., 2016) and Italy (Cioli et al., 2020). The analyzed time period starts with the work of Healy et al. (1992), who used a sample of companies from 1979 until 1983, and concludes with the research of Cioli et al. (2020), who focalize their attention on a span of time of 8 years, from 2006 until 2013.

The papers that were studied by the authors are concerned with various aspects of companies' performance. After the analysis, we have divided these aspects into six categories: productivity, profitability, efficiency, size/growth, investments, and financial health. Within the productivity category, the analysis of total factor productivity can be found. Among the most studied areas is profitability, which includes indexes such as cash flow, ROE, ROA, EBITDA, and ROCE. In the size/growth category, authors consider the sales workforce and how invested capital moves. In the investments category, the amount of investments in fixed and intangible assets, including R&D expenses and capital expenditure after acquisition, is examined. Some research focuses on financial health and their performance after M&A using Debt-equity, liquidity, and solvency ratios. Finally, some studies focus on the efficiency of the newco by analyzing capital turnover.

The studies that have been conducted on manufacturing and service companies have been limited to those that are not in the financial sector. This is because it would be difficult to compare their balance sheets due to the different methods used to account for other sources of revenue and costs. Some studies have also excluded not-listed companies (Healy et al., 1992; Ghosh, 2001; Rahman & Limmack, 2004; Moeller & Schlingemann, 2005; Mantravadi &

Reddy, 2008; Guest et al., 2012; Edamura et al., 2014; Ashfaq et al., 2014; Rashid & Naeem, 2016; Nicholson et al., 2016; Adedeji & Ayoush, 2017), while others have included both listed and not-listed companies (Gugler et al., 2003; Stiebale & Trax, 2011; Bertrand & Betschinger, 2011; Cioli et al. 2020). However, most studies only analyzed listed companies because they provide more publicly available data.

Some researchers have preferred to study the effect of the performance on the bidder's balance sheet and target as well (Healy et al., 1992; Ghosh, 2001; Rahman & Limmack, 2004; Guest et al., 2012; Cioli et al., 2020) but most of the literature analyzed preferred to focalize just on the bidder side (Gugler et al., 2003; Moeller & Schlingemann, 2005; Mantravadi & Reddy, 2008; Stiebale & Trax, 2011; Bertrand & Betschinger, 2011; Edamura et al., 2014, Ashfaq et al., 2014; Rashid & Naeem, 2016; Nicholson et al., 2016; Adedeji & Ayoush, 2017). The majority of the work takes into consideration both domestic and cross-border M&As; just two of them have a specific focus on cross-border M&As (Edamura et al., 2014; Cioli et al., 2020).

Table 8 provides a summary of the literature that we analyzed. We only included essential details such as the authors' names, the year of publication, and where the paper was published. We also added information about the time period analyzed, the indexes, and the benchmark. Additionally, we included some data on the treated group, such as the countries involved, the focus of the analysis (i.e., bidder or bidder and target together), whether the companies are listed or not, and the type of M&As (i.e., cross-border, domestic, or both).

Table 8: Summary of empirical *results on the post-acquisition performance*, focus on the bidder side.

AUTHORS	YEAR	JOURNAL	TIME PERIOD	PERFORMANCE INDICATORS	DATA/ BIDDER COUNTRY	CONTROL GROUP / BENCHMARK	BIDDER (B) or TARGET (T)	LISTED (L) or NOT LISTED (NL)	DOMESTIC (D) or CROSS-BORDER (CB)
Healy et al.	1992	Journal of Financial Economics	1979 - 1983	Operating cash flow, asset productivity capital expenditure and R&D investments	US	Industry avarage	B,T	L	D, CB

Ghosh	2001	Journal of Corporate Finance	1981 - 1995	Operating cash flow, sales growth, operating costs, workforce (n. employees)	US	control firms matched on pre-acquisition performance and size	B,T	L	D, CB
Gugler et al.	2003	International Journal of Industrial Organization	1985 - 2000	Profits before interest and taxes, Sales	World	Non-acquiring firm	B	L, NL	D, CB
Rahman & Limmack	2004	Journal of Business Finance & Accounting	1988–1992	Asset Productivity, Operating Cash flow	Malaysian	Non-acquiring firm	B,T	L	D, CB
Moeller & Schlingemann	2005	Journal of Banking & Finance	1985 - 1995	Operating cash flow	US	companies who acquired domestic target	B	L	D, CB
Mantravadi & Reddy	2008	International Research Journal of Finance and Economics	1991 - 2003	Operating profit margin, Gross profit margin, Net profit margin, Return on net worth, Return on capital employed, Debt-equity ratio	India	Industry average or firms with similar characteristics	B	L	D
Stiebale & Trax	2011	Canadian Journal of Economics	2000 - 2007	Sales, Labour, capital stock (measured as tangible fixed	U.K., France.	Non-acquiring firm	B	L, NL	D, CB

				assets), Total factor productivity (TFP)					
Bertrand & Betschinger	2011	Journal of Comparative Economics	2000 - 2008	ROA	Russian	Non-acquiring firm	B	L, NL	D, CB
Guest et al.	2012	Accounting and Business Research	1985 – 1996	ROE	Uk	non-merging control firms matched by industry and size	B, T	L	D, CB
Edamura et al.	2014	China Economic Review	2006 – 2011	Number of employees, Sales per employees, Fixed assets, Intangible assets, R&D intensity	Chinese	Non-acquiring cross border firm	B	L	CB
Ashfaq et al.	2014	International Journal of Academic Research in Business and Social Sciences	2000 - 2009	ROE, ROA	Pakistan	None (pre / post analysis)	B	L	D, CB
Rashid & Naeem	2016	Borsa Istanbul Review	1995 - 2012	ROA, Profit Margin, Debt to Equity Ratio, Interest Coverage Ratio, Current Ratio, Quick Ratio	Pakistan	None (pre / post analysis)	B	L	D, CB

Nicholson et al.	2016	Research in International Business and Finance	2001 - 2012	ROA, EBITDA margin	ASEAN	industry benchmark	B	L	D, CB
Adedeji & Ayoush	2017	International Business Research	1996 - 2003	profitability using (EBITDA – ΔWC)/Total Assets), where ΔWC is a change in working capital.	UK	companies who acquired domestic target	B	L	D, CB
Cioli et al.	2020	International Journal of Business and Management	2006 - 2013	Sales, Profit margin, Invested capital growth, EBITDA, EBIT, ROA, ROIC, Capital Turnover, Debt-equity ratio	Italy	None (pre / post analysis)	B, T	L, NL	CB

Source: Personal elaboration

2.2.2 Literature's choices about the control group

Researchers use various benchmark methods to analyze the impact of acquisitions. One of the most common techniques is to compare the performance of the acquiring company with a control group consisting of non-acquiring firms that are matched for size and other relevant characteristics. This approach has been used by several researchers, such as Gugler et al. (2003), Rahman & Limmack (2004), Stiebale & Trax (2011), Bertrand & Betschinger (2011), and Guest et al. (2012). However, Edamura et al. (2014) only included non-acquiring cross-border firms in their control group since their study focused on cross-border acquisitions. Another benchmarking method is the use of industry averages. Nicholson et al. (2016) constructed industry performance benchmarks by selecting control group companies similar in size to the acquiring firm based on book value and total assets. They then chose the companies with a level of profitability comparable to the acquiring firm. Other researchers, such as Healy et al. (1992) and Mantravadi & Reddy (2008), have employed similar techniques. However, Gosh (2001) argued that using industry-median firms as a benchmark could result in biased outcomes due to econometric issues such as measurement errors and temporary or permanent factors. Therefore,

he preferred comparing the pre-and post-acquisition performance of the acquiring firm with control firms matched based on pre-acquisition performance and size. Some researchers choose to compare the acquiring firm's performance with companies that acquired a domestic target, such as Moeller & Schlingemann (2005) and Adedeji & Ayoush (2017).

This approach aligns with their research question, which aims to determine if cross-border acquisitions are more profitable than domestic ones. Finally, certain studies don't use a control group but instead analyze the acquiring firm's pre- and post-acquisition performance. This approach has been used by Ashfaq et al. (2014), Rashid & Naeem (2016), and Cioli et al. (2020).

2.2.3 Empirical methodologies

The literature analyzed examines how accounting data can be used to determine whether acquisitions improve a company's performance and value over the medium to long term. Healy et al. (1992) add up the target company's values in the bidder's balance sheet to calculate the pre-merger performance of the combined firms. They then compare the post-merger balance sheet data with the pre-merger data to measure the change in performance. To ensure that any differences between the pre- and post-merger data are not due to factors other than the M&As, they subtract the industry median from the treated sample, resulting in industry-adjusted performance measures.

Using an industry median may lead to bias in the analysis. This bias may stem from measurement errors. For example, merged firms may outperform industry-median firms, resulting in misleading results. Additionally, performance discrepancies may be due to temporary or permanent factors that can skew the outcome (Gosh, 2001).

In order to address bias issues, Gosh (2001) conducted a study comparing the performance of a treated group before and after a merger with a control group. The control group was chosen based on similar pre-merger performance and company size within the same industry. Gosh also ensured that the operating cash flow of the control group was as similar as possible to the treated group in the year before the merger. The study assumes that when companies with unusually high cash flow are matched with others with similar characteristics, their proportion of permanent and temporary components remains consistent over time.

In their research, Gugler et al. (2003) utilized a methodology similar to Gosh (2001), which is aligned with event studies. They assumed that changes in sales and profits were consistent with those of the median firm in their industry.

In their study, even Rahman and Limmack (2004) implement the methodology employed by Gosh (2001) and other researchers. However, they deviated from previous studies by

determining the size of the company based on the book value of total assets at the end of the year before the acquisition. To calculate this value, they added share capital reserves and total debt and then subtracted cash and marketable securities.

In 2010, Guest et al. utilized similar matching techniques as Gosh (2001) and other authors to identify publicly listed companies that did not make a takeover offer for a public company in the three years prior to and following the acquisition year as control firms. Gosh (2001) noted the potential issue of acquirer firms showing above-average profitability before acquisition but experiencing a dip after M&A due to external factors of merger operations. To address this, the authors regressed the post-takeover abnormal profit rate for each acquisition on an equivalent pre-takeover abnormal profit rate.

Instead, Moeller & Schlingemann (2005) preferred to adopt the Healy et al. (1992) method.

Still, Adedeji & Ayoush (2017) adjust the value of the measure for the industry median in each year to control the potential impact of the industry as Healy et al. (1992) did, but they also control the potential joint effects of the industry, pre-acquisition size, and bidder performance on their post-acquisition level of profitability by subtracting the median value of the level of profitability of a firm that is comparable to each bidder in terms of industry, size, and pre-acquisition. They also include bidders who existed for less than three years before acquiring their targets and those who ceased to exist in less than three years following acquiring their targets to minimize survival bias.

Nicholson et al. (2016) combine two schools of thought to determine the impact of acquisition on operating performance. They utilize two benchmarks to achieve this goal. The first benchmark is based on Healy et al. (1992) and allows for industry effect controls. The second benchmark, inspired by Gosh (2001), controls for firm size and pre-M&A performance.

Stiebale & Trax (2011) apply a propensity score matching procedure combined with a difference-in-differences (DID) estimator. Like in previous studies, the DID method faces the challenge of creating a counterfactual scenario that is not directly observable and is impacted by missing data issues. To overcome this issue, they used matching techniques to establish a control group and improve the accuracy of their estimates.

Edamura et al. (2014) applied DID estimations and PSM estimations with DID. The latter is taken by Stiebale & Trax (2011). They know regards the possible bias due to endogenous selection in DID estimations for pre-M&As data; therefore they apply PSM estimation to understand the effect of M&A transactions on the treated, i.e. the Average effect of Treatment on the Treated (ATT).

According to a study by Bertrand & Betschinger (2012), propensity score matching has two main limitations. The first limitation is that it makes a strong assumption of conditional independence, which means that it assumes that the decision to acquire is only based on observable characteristics. The second limitation is that propensity score matching does not work well when the treatment group is affected by multiple treatments. In their case, companies may make multiple mergers and acquisitions (M&As) in the same period or year. They also have to deal with the dynamic selection issue, which means that previous M&A decisions can influence future acquisition decisions. Due to these challenges, the study recommends using the Generalized Method of Moments (GMM) estimation. This approach involves building a panel design with relevant variables and controlling for factors influencing acquiring and non-acquiring businesses' performance. The GMM method can address endogeneity, omitted variables, and simultaneous causality. Additionally, it can incorporate lagged dependent variables, which are useful in M&A operations since profitability measures can be partially constant over time. By including the lagged dependent variable, the influence of missing variables is filtered out, and the explanatory power of the independent variables is limited to those independent factors that are not included in the lagged dependent variable (Bertrand & Betschinger, 2012).

Rashid & Naeem (2016) used regression analysis, specifically OLS - Bayesian Estimation, to examine how M&A operations impact profitability, liquidity, and leverage position. They also included various control variables to ensure the results were reliable and to prevent multicollinearity.

Finally, Cioli et al. (2020) utilized the non-parametric Wilcoxon test to examine the differences in performance between the variables being studied. This test is based on the hypothesis of the analyzed variables' median. The test's null hypothesis is that the means of the two variables are equal, while the alternative hypothesis (using test Z) is that the two variables differ significantly. In addition, an ordinary least squares regression was conducted to investigate the factors that influence the performance of target and bidder companies after a merger or acquisition. A weighted heteroscedasticity-corrected model is used instead of the OLS model if heteroskedasticity occurs. The performance after an M&A is then examined against a range of explanatory factors, including deal-specific, economic, and cultural country-level factors.

2.2.4 Main results

Upon careful analysis, it has been found that cross-border M&As may have a negative impact on bidder performance. In terms of productivity, researchers such as Stiebale & Trax (2011)

discovered that UK companies experienced decreased Total Factor Productivity (TFP) while French companies did not show any significant effects. However, high-tech companies observed a positive increase in productivity, which could be attributed to the acquisition of complementary technologies from abroad and their application in the domestic market (Stiebale & Trax, 2011).

Healy et al. (1992) and Rahman & Limmack (2004) found that cross-border M&As positively and significantly impact asset productivity for bidders. This is similarly supported by Edamura et al. (2014), who found that using "sales per worker" as a measure of productivity showed a positive effect.

After an acquisition, the focus is mainly on analyzing profitability, with a particular emphasis on ratios like ROA and operating cash flow. However, there is a lack of agreement in the literature regarding the impact of cross-border acquisitions on these metrics. Some authors, such as Healy et al. (1992), Rahman & Limmack (2004), and Cioli et al. (2020), believe that these acquisitions have a positive effect on operating cash flow and the EBITDA margin. On the other hand, Gugler et al. (2003) argue that they have a negative impact on profitability. Meanwhile, Nicholson et al. (2016) suggest no significant effect has been observed.

Ghosh (2001) conducted an analysis to determine whether acquisitions made with cash or stocks impacted performance. The results revealed that operating cash flow improved significantly in cash acquisitions (about 3% per year). In comparison, stock acquisitions had a negative effect (lower by 3.94% per year compared to cash acquisition), although the empirical evidence was weak. Ghosh found that the improvements in cash acquisitions were due to higher sales growth rather than cost reductions. In contrast, stock acquisitions failed to achieve the synergy gains promised (Ghosh, 2001).

Several authors have chosen to focus their research on comparing the performance of domestic and cross-border acquisitions. The consensus among these authors is that the latter has inferior performance compared to the former, particularly in operating cash flow and EBITDA margin. (Moeller & Schlingemann, 2005, Adedeji & Ayoush, 2017).

Adedeji and Ayoush (2017) have developed a formula to calculate profitability that considers changes in working capital. The formula is (EBITDA minus ΔWC divided by total assets). This helps avoid any potential bias caused by accounting policies that may affect profitability and lead to differences in performance that are not due to actual improvement.

Cioli et al. (2020), Guest et al. (2012), and Gugler et al. (2003) stated a positive effect of cross-border mergers on Profit margin, ROE, ROIC, EBIT margin, and Net Income Before Interest and Taxes. Ashfaq et al. (2014), instead, underline a negative impact on ROE.

Regarding the ROA effect, the literature agrees that cross-border M&As had a negative impact (Bertrand & Betschinger, 2011, Ashfaq et al., 2014, Nicholson et al., 2016, Cioli et al., 2020). According to Rashid & Naeem (2016), the effect is not significant, and looking at the work of Bertrand & Betschinger (2011), they made a step forward by observing that acquisitions abroad on high-tech companies, again, had a positive effect on contrast to other sectors. In addition, high-tech companies appear to be better able to derive financial benefits from international business than local business, exploiting new markets abroad. (Bertrand & Betschinger, 2011).

Additionally, the literature focuses on size and growth, but different researchers have opposing views on the matter. In terms of sales growth, many papers agree that cross-border operations positively impact (Stiebale & Trax, 2011; Ghosh, 2001; Edamura et al., 2014; Cioli et al., 2020). Foreign acquisitions have boosted domestic sales on average (Stiebale & Trax, 2011). However, Gugler et al. (2003) and Ghosh (2001), only regarding stock acquisitions, found the opposite. Gugler et al. (2003), for example, analyzed a sample of companies worldwide and found that mergers, on average, reduce the sales of merging firms. This trend seems consistent worldwide and not limited to a specific country (Gugler et al., 2003).

The number of employees is not a debate topic for the analysis of the effects post-merger since, except for stock acquisitions where we found a negative impact on the workforce (Ghosh, 2001), the literature agrees on positive or no significative effect (Stiebale & Trax, 2011, Ghosh, 2001, Edamura et al., 2014). Cioli et al. (2020) are the only work focused on the effect on invested capital, and they found a positive impact of cross-border M&As on it.

Investments are the second-to-last area studied, where values such as investments in fixed and intangible assets, capital expenditure, and R&D expenses are considered. Edamura et al. (2014), Stiebale & Trax (2011), and Healy et al. (1992) are the leading works on this topic. According to the first study, cross-border acquisitions positively impact fixed and intangible asset investments but have no significant effect on R&D expenses. The second study found no significant impact on fixed-asset investments, while the last study agreed that there was no significant increase in R&D expenses. Furthermore, the authors did not observe any influence of acquisitions on capital expenditure.

As for efficiency, Cioli et al. (2020) conducted the only study on this topic and found no significant effect on capital turnover. Similarly, when analyzing financial health, only a couple of works have been done by Rashid & Naeem (2016) and Cioli et al. (2020). These studies focused on the Debt-equity ratio, Liquidity ratio, and Interest Coverage Ratio but found that cross-border M&As had no significant impact on them.

The main results are summarized in Table 9, with six categories: productivity, profitability, size/growth, investments, efficiency, and financial health. In terms of productivity, three papers (Healy et al., 1992; Rahman & Limmack, 2004; Edamura et al., 2014) agree that cross-border M&A positively impacts bidder performance. However, Stibale & Trax (2011) suggest that this positive impact is limited to high-tech companies, while others may experience negative or insignificant effects. For profitability, four papers show that outbound acquisitions have a positive impact (Healy et al., 1992; Rahman & Limmack, 2004; Cioli et al., 2020; Guest et al., 2012). On the other hand, three papers (Gugler et al., 2003; Ashfaq et al., 2014; Nicholson et al., 2016) found that these operations penalize bidders who concluded deals. Gosh (2001) found that companies benefit from increased productivity only if they use cash for cross-border M&A, while those who pay with stocks experience the opposite result. Bertrand & Betschinger (2011) found that only high-tech companies enjoyed increased profitability. Two other papers suggest domestic acquisitions have a higher effect than cross-border ones (Moeller & Schlingemann, 2005; Adedeji & Ayoush, 2017). Finally, two more papers (Nicholson et al., 2016; Rashid & Naeem, 2016) show that cross-border acquisitions have no significant effect.

In the "Size and Growth" macro area, we have analyzed three papers that postulate an increase in performance after acquisition (Stiebale & Trax, 2011; Edamura et al., 2014; Cioli et al., 2020) and one study that found the opposite (Gugler et al., 2003). According to Gosh (2001), cash acquisitions still improve performance in this macro-area, while stock acquisitions have a negative impact.

Regarding the area of "Investments", none postulate a negative effect, Edamura et al. (2014) found a positive effect, and the other two studies found no effect (Stiebale & Trax, 2011; Healy et al., 1992).

Literature agrees even in the "efficiency" and "financial health" areas, in which no significant effects were found (Rashid & Naeem, 2016; Cioli et al., 2020).

Table 9: Literature review: Main results

	VARIABLES	**POSITIVE EFFECT**	**NEGATIVE EFFECT**	**NO SIGNIFICANT EFFECT**
PRODUCTIVITY	Total Factor Productivity (TFP)	Stiebale & Trax, 2011 - High tech companies	Stiebale & Trax, 2011 - Uk companies	Stiebale & Trax, 2011 - French companies
	Asset Productivity	Healy et al., 1992, Rahman & Limmack, 2004		

	Sales per worker	Edamura et al. , 2014		
PROFITABILITY	Operating Cash flow	Healy et al., 1992, Ghosh, 2001 - cash acquisitions, Rahman & Limmack, 2004	Ghosh, 2001 - stock acquisitions, Gugler et al., 2003, Moeller & Schlingemann, 2005 (in comparison of domestic acquisition)	
	EBITDA margin	Cioli et al., 2020	Adedeji & Ayoush, 2017 (in comparison of domestic acquisition)	Nicholson et al., 2016
	Operating Costs		Ghosh, 2001 - stock acquisitions	Ghosh, 2001 - cash acquisitions
	Profit margin	Cioli et al., 2020		Rashid & Naeem, 2016
	ROA	Bertrand & Betschinger, 2011, - High tech companies	Bertrand & Betschinger, 2011, Ashfaq et al., 2014, Nicholson et al., 2016, Cioli et al., 2020	Rashid & Naeem, 2016
	ROE	Guest et al., 2012	Ashfaq et al., 2014	
	ROIC	Cioli et al., 2020		
	EBIT margin	Cioli et al., 2020		
	Net Income Before Interest and Taxes	Gugler et al., 2003		
SIZE/GROWTH	Sales	Stiebale & Trax, 2011, Ghosh, 2001 - cash acquisitions, Edamura et al., 2014, Cioli et al., 2020	Ghosh, 2001 - stock acquisitions, Gugler et al., 2003	

	Employment	Stiebale & Trax, 2011	Ghosh, 2001 - stock acquisitions	Stiebale & Trax, 2011, Ghosh, 2001 - cash acquisitions, Edamura et al., 2014
	Invested Capital	Cioli et al., 2020		
INVESTMENTS	Fixed Asset Investments	Edamura et al., 2014		Stiebale & Trax, 2011
	Intangible assets Investments	Edamura et al., 2014		
	R&D expenses			Healy et al., 1992, Edamura et al., 2014
	Capital expenditure			Healy et al., 1992
EFFICIENCY	Capital Turnover			Cioli et al., 2020
FINANCIAL HEALTH	Debt-equity ratio			Rashid & Naeem, 2016, Cioli et al., 2020
	Liquidity ratio			Rashid & Naeem, 2016
	Interest Coverage Ratio			Rashid & Naeem, 2016

Source: Personal elaboration

2.3 Reasons behind cross-border M&As, new elements emerge

2.3.1 Costs and benefits

After analyzing the literature on cross-border M&A, it is clear that there is no consensus on whether the performance post-acquisition is positively impacted. It appears that the increase in company values may not be the sole reason for internationalization through M&As. There are likely other factors and parties involved in the decision-making process that warrant further study and analysis.

The advantages of internationalization through M&As include utilizing economies of scale and scope and sharing resources and knowledge across multiple countries. This can lead to standardized products, increased bargaining power, and improved business relationships. Transferring valuable resources and core competencies to new business units can also be beneficial.

International mergers and acquisitions can be viewed as a way to acquire missing resources and assets quickly, and this is especially important for companies in emerging markets that face a

competitive disadvantage compared to those in developed markets (Bertrand & Betschinger, 2012; Edamura et al., 2014). These benefits align with the resource-based view (RBV).

Stiebale and Trax (2011) suggest that companies go abroad not just to produce at lower costs but also to gain access to the knowledge and technology of foreign firms. However, this objective may undermine the company's efficiency.

It's important to note that international diversification can positively impact innovation, which is crucial for achieving sustainable competitive advantage. Investing in innovation can improve a company's ability to survive in the long run. The global competitive market provides an incentive for companies to invest in innovation, and through M&As, they can access more financial and human resources to support this. Ultimately, creating a virtuous circle of innovation can lead to higher returns. (Hitt et al., 1997)

Although there are numerous benefits to mergers, management may overestimate these benefits, resulting in higher costs at the end of the process and reduced acquirer performance. These costs may include difficulties in managing international processes due to varying governments, trade laws, and currencies, transaction costs such as coordination, distribution, and management, and trade barriers caused by cultural friction and competition (Hitt et al., 1997).

Companies need to learn and understand how to operate in a new environment with different rules regarding legal, economic, and cultural aspects. This is particularly relevant for emerging market firms because when entering a developed market, economies also face reputation problems (Bertrand & Betschinger, 2012).

Experience helps from this point of view; companies that already made several cross-border acquisitions have learned how to enter a foreign market, and this ability could help to achieve better performance. Empirical evidence underlines how more experience in deal selection, structuring, and integration brings acquirers to have better performance (Bertrand & Betschinger, 2012).

Additionally, the agency theory is a relevant topic to consider to underline that efficiency gain could not be the sole reason for a cross-border M&A. Jensen & Meckling (1976) suggest that since managers and shareholders have different interests, each party may try to maximize their own wealth. Therefore, the decision to acquire other companies may be in line with the management's interest in expanding the company, increasing their compensation, and reducing default risk through diversification rather than increasing the company's value, which shareholders desire (Cole et al., 2006; Stiebale & Trax, 2011; Bertrand & Betschinger, 2012).

Different methods are available for companies to enter the market. These include exports, greenfield foreign direct investment, and cross-border mergers and acquisitions (M&As). The choice of the preferred method depends on the specific features of the company and industry. Companies need to decide whether to produce locally or not. If they do, they can either build a production plant (foreign direct investment (FDI)) or acquire an existing company. According to the Resource-Based View (RBV) and management strategy literature, companies tend to prefer mergers and acquisitions when they can benefit from complementarities among their capabilities. These capabilities, such as marketing, distribution, and country-specific institutional competencies, may not be easily transferable. Cross-border M&As may be driven by exploiting non-transferable resources locally and creating synergies with international mobile competencies (Nocke & Yeaple, 2007).

When a company acquires another company, especially internationally, it gains valuable information along with assets listed on the balance sheet. Acquiring a business across borders can provide access to an established network of customers and suppliers with which the company has previously worked. Additionally, the products and services offered by the acquired company have already been tested in the market and are probably to meet consumer preferences (Stiebale & Trax, 2011).

Finally, an outbound transaction may be done solely for strategic reasons rather than for the purpose of improving efficiency (Stiebale & Trax, 2011).

2.3.1 Resource-Based View as a Reading Key

According to the literature, companies often engage in cross-border mergers and acquisitions to quickly and efficiently obtain resources, knowledge, and strategic assets that are unavailable or difficult to obtain (because they are costly or time-consuming to obtain) in their domestic market (Stiebale & Trax, 2011; Bertrand & Betschinger, 2012; Edamura et al., 2014). These strategic motivations may prioritize long-term success over short-term efficiency and profitability. The importance of these resources aligns with the Resource-Based View (RBV) theory, which warrants further exploration.

According to the Resource-Based View (RBV), a company's resources can be defined as all its knowledge, capabilities, assets, processes, and information that it owns or controls. These resources can be leveraged to implement strategies that maximize efficiency. There are three main categories of resources: physical capital resources, human capital resources, and organizational capital resources. Physical capital resources include technologies, plant and equipment, access to economic resources, raw materials, strategic suppliers, and geographical

location. Human capital resources are relevant to worker characteristics such as training, experience, skills, and capabilities. Organizational capital resources include a company's ability to communicate and organize operations, formal and informal information flow, control and coordinate systems, and relationships among actors of company life (Barney, 1991).

RBV theory proposes that companies perform differently due to variations in the resources they possess (Lockett et al., 2009). However, not all resources can provide a competitive advantage over competitors. For this to happen, resources must have four attributes: valuable, rare, difficult to imitate, and irreplaceable (Barney, 1991).

"Valuable" resource means that it can bring value for the company, i.e., it can create and exploit opportunities or neutralize threats. "Rare", instead, are those resources that are difficult to find in the market, and even if present, they are not equally distributed among competitors. "Imperfect imitable" means that we are talking about resources that competitors cannot copy or that are very difficult to copy. The reason could be due to a historical issue; for example, if a company operates for a long time in the market in the consumer's mind it is the best or the only one. Other factors could be social complexity and casual ambiguity. Finally, "non-substitutability" means that there are resources that should not be able to be replaced by another one that has the same strategic impact (Lockett et al., 2009).

2.3.2. Role of Organizational Slack in adapting to changes

The resource-based view and behavioral theory of the firm suggest that organizational slack is an essential resource for companies to successfully adapt to internal and external changes (Bozos et al., 2021). Specifically, organizational slack is a company's surplus of resources over and beyond what it requires for its ongoing operations (Alessandri et al., 2014).

Therefore, Organizational slack serves three primary purposes. First, it provides protection against external threats, such as changes in national policies or new competitors entering the market. Second, it is an internal conflict resolver; since those resources are immediately available, management has the possibility to allocate enough amount of resources to different projects. Third, it can push growth and investment in new technologies (Bozos et al., 2021).

Slack can be classified into three types: recoverable, potential, and available. Recoverable slack is formed by estimated costs that are no longer necessary. Potential slack refers to possible resources that could be raised in the market through new debt or issuing equity. Available slack, on the other hand, refers to resources that are immediately ready to use (Bozos et al., 2021).

The literature analyzed focuses on two types of slack, as recoverable slack is included in available slack. Potential slack, also known as unabsorbed slack, is calculated as the inverse of

the debt-to-equity ratio (E/D). Available slack, or acquirer current ratio, is calculated by dividing current assets by current liabilities (Cheng and Kesner, 1997; Lin et al., 2009; Zakaria et al., 2017; Alessandri et al., 2014).

Organizational slack could be defined as a "valuable" resource because it can bring value to the company. For instance, it can improve performance after a merger, provide access to new technology through acquisitions, and help enter new markets by expanding logistical distribution. It can be defined as "rare", especially in periods of financial uncertainty, such as credit crunch, when financial intermediaries are less willing to provide economic resources. In such times, targets may be cheaper because of lower multiples, and other acquirers may be hesitant to invest in extraordinary finance operations due to a lack of funding or fear of the unknown. In periods when money is readily available and the cost of capital is very low (i.e., before the financial crises of 2007-2009), organizational slack may not be considered a rare resource.

The same is true if we want to define organizational slack as an "imperfect imitable" resource; in periods where the possibility to obtain funds is easy and chip, all the firms can imitate it, but in other moments, economic resources at zero cost is impossible.

When considering non-substitutability characteristics, it's important to approach the topic differently. While stock acquisition may be a substitute, research by Ghosh (2001) indicates that operating cash flow declined following M&A operations. This implies that while a substitute exists, its effectiveness may not be as strong as cash acquisition. Similarly, exporting and creating joint ventures abroad cannot be considered perfect substitutes as they have distinct advantages and disadvantages in the process of internationalization.

2.4 Conclusions

In this chapter, we have analyzed the literature on the performance of post-mergers and acquisitions, specifically focusing on the bidder side of cross-border M&As. Through our research, we have discovered relevant information for further understanding of the topic. It is interesting to note that researchers have differing opinions on various aspects of the topic, and even the empirical methodologies used vary in some cases.

Companies operating in the high-tech industry seem to be able to reap greater benefits from cross-border M&As due to their ability to acquire complementary technologies from abroad and use them domestically. This resource mobility increases productivity and profitability, even in cases where the sample shows a negative impact (Stiebale & Trax, 2011).

In addition, it appears that cash acquisitions have superior performance compared to stock acquisitions.

According to the literature, cross-border M&A is the most effective method for entering a foreign market if the bidder seeks to obtain non-mobile capabilities such as marketing, distribution, and country-specific institutional competency (Nocke & Yeaple, 2007).

Finally, we must stress the importance of organizational slack in cross-border M&As in improving post-merger performance, particularly in cases where there is high institutional and cultural distance among operational actors. Available resources serve as a means of mitigating information asymmetries and resolving intra-organizational resource conflicts (Bozos et al., 2021).

Not only the organizational slack but even the experience improves post-merger performance; the knowledge to enter a new market seems something that can be improved by repeating the operation more and more. Companies that already made several cross-border acquisitions have learned how to enter a foreign market, and this resource helps to achieve better performance (Bertrand & Betschinger, 2012).

Given the high relevance of this topic and the inconclusiveness of the literature, further research must be conducted to determine the path toward decreasing the failure rate of cross-border mergers, increasing bidders' benefits of a cross-border takeover, and reducing costs. This is particularly important in the Italian market, where the phenomenon of cross-border M&As has become increasingly relevant in recent years, but the literature is not yet complete.

MEASURING THE PERFORMANCE OF ACQUIRING FIRMS AFTER CROSS-BORDER M&AS

3.1 Introduction

The empirical Chapter is divided into three sections. In the first one, we are going to define the "identikit" of Italian companies that made out-boards M&As from 1985 until 2022. In the second section, we will give a brief insight into resources and how they are related to the decision to make an acquisition, particularly in an international environment. Finally, the third section is dedicated to analyzing the post-acquisition performance, comparing Italian companies that made out-board M&As with others that did not.

At the beginning of each section, there is a fuller explanation of the topic afforded, the methodologies adopted, and the research questions.

3.2 Identikit of Italian companies who made out-boards M&As

In this paragraph, I would like to find an answer to the first research question, i.e., what is the "identikit" of the Italian company that does "shopping" abroad, and what are the financial characteristics? What is the size? In which sector do they operate, and in which countries do they prefer to conclude deals? How did those characteristics change over the years?

Since, as we have seen in the last chapters, the outbound operations are continually increasing in counter-current to the total deal value, the reason could be due to less weight of mega deals or an increase in the number of small-medium enterprises (SMEs) who decided to go internationally through M&As.

Upon examining Table 10, we can notice that the number of deals worth less than 250 million in the past three years is rising more rapidly than those with a higher value. This trend could be attributed to companies of similar size opting to acquire smaller targets or even small and medium-sized enterprises adopting a new growth strategy by expanding abroad through M&As.

Table 10: Italian outbound M&As, classification per deal value

	2020	2021	2022	CAGR %
< 250 mln	130	189	193	14%
> 250 mln	22	24	26	6%
Total	**152**	**213**	**219**	

Source: Personal elaboration using data from KPMG Corporate Finance

According to KPMG M&A reports for 2022, the performance of the Italian market confirms, in line with previous years, that M&A activity is now a tool that businesses use more frequently in the execution of their business strategies in order to speed up business transformation processes, broaden their presence in international markets, and reinforce their competitive positioning (Kpmg, 2022).

All these clues allow us to outline the hypothesis that the average size of the company that faces abroad has decreased over the years. It is, therefore, interesting to understand if this idea is confirmed by data and how other balance sheet indexes such as EBITDA margin, debt indices, ROA, and liquidity indices have moved on average over time.

3.2.1 Treated group

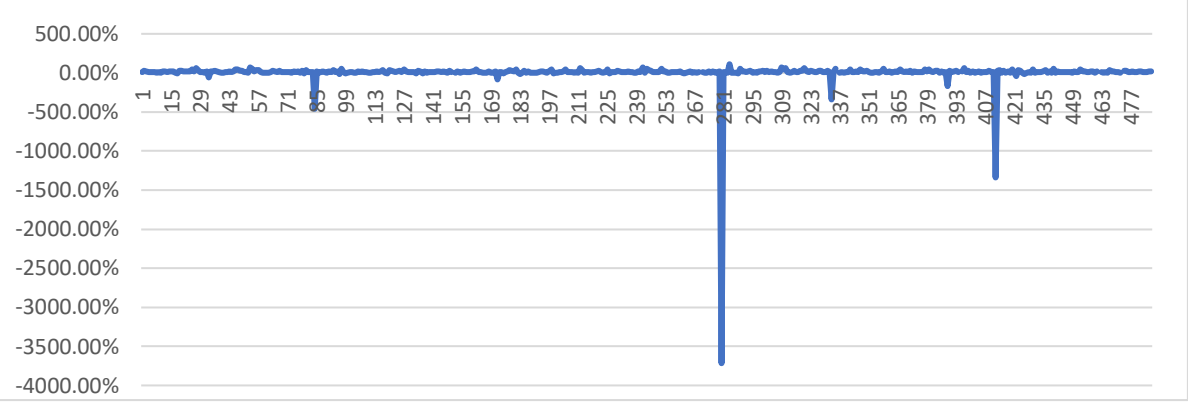
3.2.1.1 Search Criteria

The database used to collect data is Refinitiv Eikon, where we include listed and non-listed companies for a time period from 1985 to 2022, which are all the years available in the database, and we take into consideration M&A transactions in which the deal status is "completed". We avoid operations in which the deal status is "Status Unknown", defined in the Thomson Reuters database as "transactions for which no definitive, conclusive evidence of the outcome of the deal was available after extensive research", or "Pending", defined in the Thomson Reuters database as "the transaction has been announced but has not been completed" or still "Withdrawn", defined in the Thomson Reuters database as "the target or acquiror in the transaction has terminated its agreement, letter of intent, or plans for the acquisition or merger".

We select only Italian companies that made at least one outbound cross-border M&A and bought more than 50% of the target shares; in this way, they have the power to influence company strategies and decisions. We decided to include only companies that operate in the manufacturing and services sector, avoid, therefore, ones that run businesses in the financial, government and real estate industry (this choice is made following other authors that did the same in their works, like Cioli et al., 2020 and Stiebale & Trax, 2011).

Financial organizations and government companies have different definitions of output and sales, making comparing their balance sheet data difficult. Additionally, we exclude government companies due to potential conflicts of interest between political and financial goals, as well as weaker efficiency incentives and stronger organizational rigidities associated with state control. This could lead to poor performance by acquirers of state-controlled companies. (Bertrand & Betschinger, 2011). Those exclusions were made in Target's and Acquiror's macro industry. For example, since it is a government company, we exclude the operation made by the RINA spa multinational group based in Genoa. It was founded in 2000 as a spin-off of the Registro Italiano Navale, which remains the majority shareholder.
We take into consideration companies that have data available 12 months ending the date of the most recent financial information before the announcement of the transaction, so the balance sheets are affected by the previous acquisitions, but they are not influenced by the one the company is going to complete.
Another fundamental practice to do is to delete redundant data. To do so, we eliminate companies that made more than one acquisition in the same year because it would have been counted more times in the further calculation. We should leave, instead, the same companies that made more M&A but in different years because they present different balance sheets with different data. Finally, some outliers are individuated, as we can see in the example of the graph below (Figure 18), which have very negative data that alone affect the indexes of all samples. We prefer to use the median instead of the average to soften their effect.

Figure 18: Outliers for the EBITDA margin



Source: Elaborations on data from Refinitiv Eikon Datasets

In particular, the main outliers are the following four operations (Table 11):

Table 11: Outliers

Rank Date	Form of the Deal	Target Full Name	Target Macro Industry	Target Nation	Acquiror Full Name	Acquiror Macro Industry
09/25/2019	Acquisition Of Majority Interest	Naprzod SA	Consumer Products and Services	Poland	Rekeep World Srl	Consumer Products and Services
06/13/2012	Merger	NeuroNova AB	Healthcare	Sweden	Newron Pharmaceuticals SpA	Healthcare
11/02/2008	Merger	Hunter-Fleming Ltd	Healthcare	United Kingdom	Newron Pharmaceuticals SpA	Healthcare
03/08/2001	Merger	MyAlert.com	High Technology	Spain	Vitaminic SpA	High Technology

Acquiror Net Sales (Eur, Millions)	Ebitda Margin	Current Ratio	Net Debt-To-Equity Ratio	Net Debt on Total Asset (Leverage)	ROA	ROE	Profit Margin
0,54	-456,77%	0,37	-0,03	-0,0027422	-23,89%	-233,63%	-387,94%
0,28	-3715,36%	2,70	-0,49	-0,236621	-47,51%	-97,87%	-2301,79%
4,02	-336,43%	7,11	-1,09	-0,8856867	-15,76%	-19,32%	-275,57%
1,87	-1336,27%	7,94	-0,95	-0,8364491	-75,81%	-86,52%	-1334,20%

Source: Elaborations on data from Refinitiv Eikon Datasets

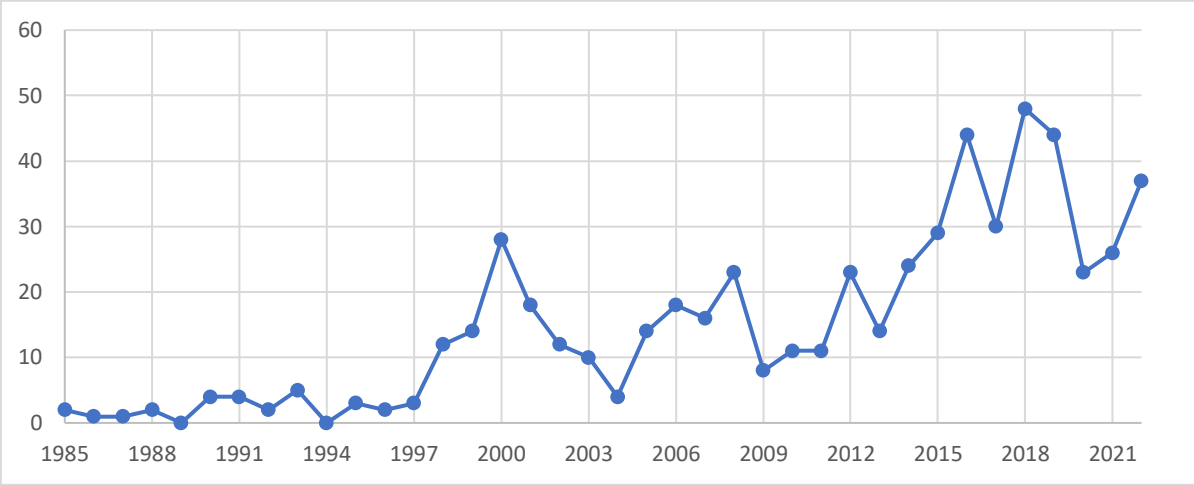
Once we established all the search criteria, we arrived at a total of 481 observations.

3.2.1.2 Descriptive statistics

In this paragraph, I am going to present a descriptive analysis of Italian companies that have engaged in outbound cross-border M&As from 1985 until 2022, based on specific search criteria. As we can see in Figure 19, the number of operations made yearly is increasing over time but following economic cycles, in particular, in the late 1990s, we see how the cumulative line becomes steeper (Figure 20) with the first peak reached in 2000 and then decreasing in the following years in conjunction with dot.com crisis. In 2009 happened the same; the effects of the financial crisis of 2007 reached Europe, leading to a decline in operations during subsequent years. In 2020/2021, we see heavy braking of the operation due to how the COVID-19 pandemic affects Italy, Italian firms, and the world. Here, the pandemic had a different effect because the world closures all happened simultaneously and brought a global block to operations, so the effect was immediate and not after the emergence of the crisis. In 2022, the

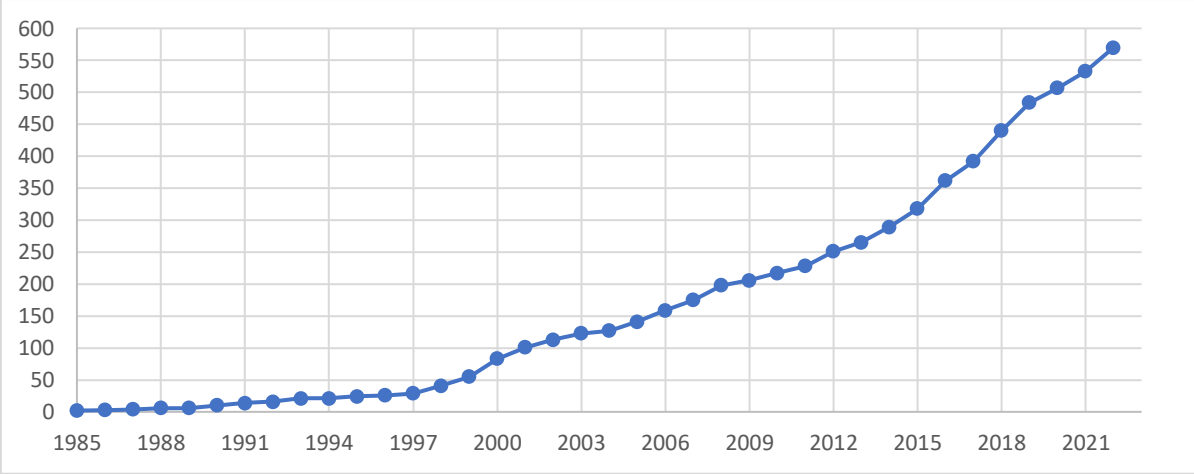
number of operations is returning to pre-COVID levels, though even lower. According to the literature, a strong correlation exists between business cycles and international M&As, which occur in waves. Booms in the real sector and the financial market coexist with merger waves, and cross-border M&As are much more pro-cyclical than domestic ones. Moreover, when the target and acquirer economies are both booming, M&As are more likely to happen. Even the results of global booms support this. The majority of acquirers buy the target nations when demand is high, productivity is high, and the business environment is favorable. In line with what has been observed and according to the neoclassical theory of mergers, acquirers expand worldwide to take advantage of new investment opportunities in developing markets (Makaew, 2012).

Figure 19: Number of outbound M&As per year, 1985 - 2022



Source: Elaborations on data from Refinitiv Eikon Datasets

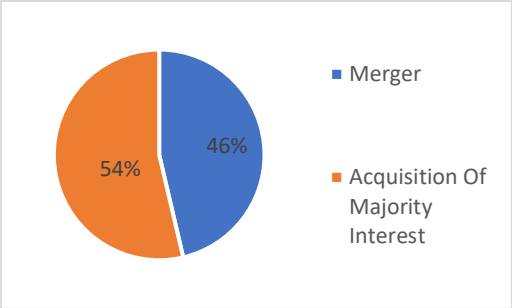
Figure 20: Cumulative sum of outbound M&As per year, 1985 - 2022



Source: Elaborations on data from Refinitiv Eikon Datasets

The treated group we are going to analyze shows that 54% of the operations are labeled as “Acquisition of Majority of Interest" and 46% are “Merger” (Figure 21). According to the Thomson Reuters Eikon database classification, we can define the former as an “operation in which the acquirer must have held less than 50% and be seeking to acquire 50% or more, but less than 100% of the target company’s stock”.
The latter, instead, is a “combination of businesses that takes place or 100% of the stock of a public or private company is acquired”.
We took into consideration only businesses that bought more than 50% of the target shares; in this way, they have the power to influence company strategies and decisions.

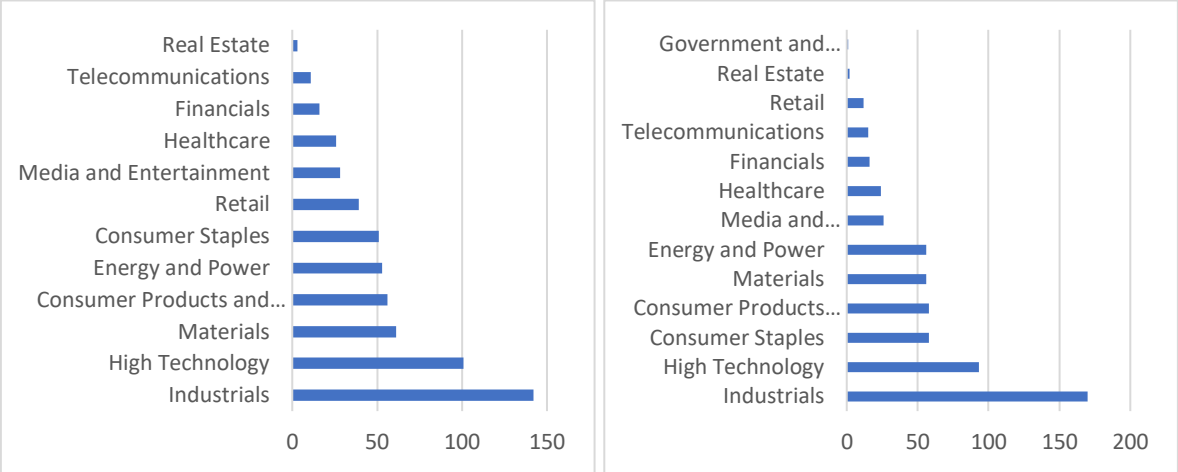
Figure 21: Form of the deal, the treated group



Source: Elaborations on data from Refinitiv Eikon Datasets

Regarding industries in which targets and acquirers in the treated group operate, we can see how "high technology" and "industrials" sectors are the most frequent. Going ahead in the target's list, there are "materials" and "consumer products and services" instead. From the acquirers' side, we can find "consumer staples" and "consumer products and services" as well (Figure 22).

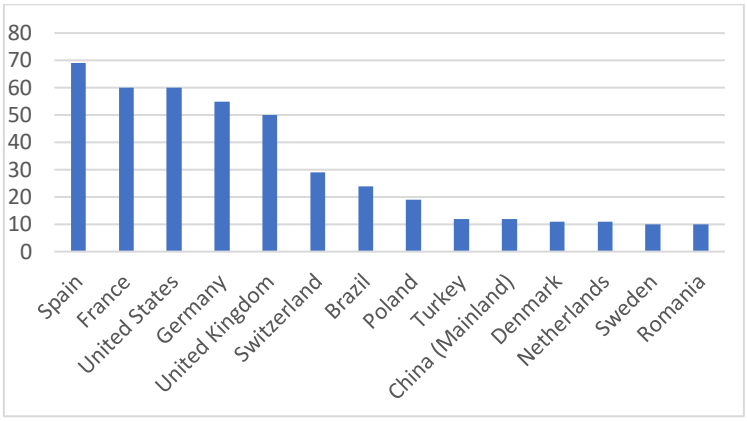
Figure 22: Acquiror and Target industry, 1985 – 2022 (number of deals)



Source: Elaborations on data from Refinitiv Eikon Datasets

Figure 23 shows the best nations where Italian companies decided to invest from 1985 until 2022. Particularly, in the top three, we can find Spain with 69 deals completed, France, and US with 60 operations concluded each.

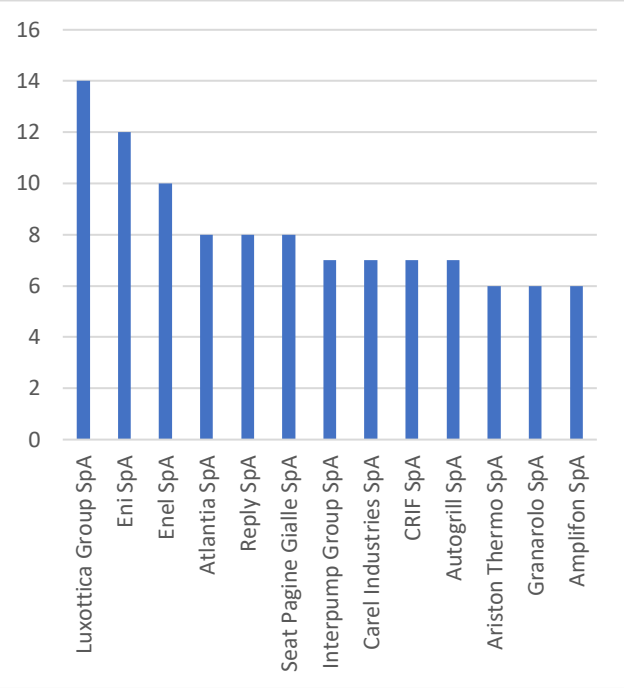
Figure 23: Top target nations, 1985 – 2022 (number of deals)



Source: Elaborations on data from Refinitiv Eikon Datasets

Figure 24 shows a visualization of the top acquirers and the number of strategic outbound cross-border acquisitions they made over the last 37 years. Additionally, Table 12 provides us with relevant data on the mean, median, standard deviation, max, and min values of these top acquirers' index and balance sheet values. It is important to note that this data only reflects each company's most recent available information.

Figure 24: Top acquirors, 1985 - 2022



Acquiror Full Name	N. of operations	Acquiror Macro Industry
Luxottica Group SpA	14	Consumer Products and Services
Eni SpA	12	Energy and Power
Enel SpA	10	Energy and Power
Atlantia SpA	8	Industrials
Reply SpA	8	High Technology
Seat Pagine Gialle SpA	8	Media and Entertainment
Interpump Group SpA	7	Industrials
Carel Industries SpA	7	Industrials
CRIF SpA	7	Consumer Products and Services
Autogrill SpA	7	Retail
Ariston Thermo SpA	6	Industrials
Granarolo SpA	6	Consumer Staples
Amplifon SpA	6	Healthcare

Source: Elaborations on data from Refinitiv Eikon Datasets

Table 12: Main balance sheet data of top acquirors, 2021

Data in Euro, 2021	Acquiror Sales	ROE %	ROA %	EBITDA margin	Profit Margin	Current ratio
Mean	14.337.691.623	10,60	4,28	19,45	8,69	1,35
Median	1.604.255.000	9,97	4,23	17,16	6,31	1,30
S.d.	29489430394	8,49	3,68	10,61	5,89	0,71
Min	11.251.679	-3,89	-0,92	5,15	0,64	0,67
Max	84.104.000.000	28,88	10,25	48,66	16,91	3,39

Source: Elaborations on data from Orbis Database

3.2.1.3 Data and Indexes

The data being considered pertains to a 12-month prior to the date of the latest financial information before the announcement of the transaction. The data is presented in millions and in the currency of the acquiring company's nation, euros. The data used are the ones described in Table 13, and all the definitions are taken by the Thomson Reuters Eikon database.

Table 13: Acquiror data description

DATA	DESCRIPTION
ACQUIROR NET SALES	Defined in the Thomson Reuters Eikon database as "Primary source of revenue after taking into account returned goods and allowances for price. If not available, total revenues is used".

ACQUIROR TOTAL ASSETS	In the Thomson Reuters Eikon database it includes current assets, long-term investments and funds, net fixed assets, tangible assets, and deferred charges for the acquiring company.
ACQUIROR CURRENT ASSETS	Cash and assets that can be easily converted to cash within a year, such as cash, marketable securities, accounts receivable, inventories, and prepaid expenses.
ACQUIROR CURRENT LIABILITIES	This refers to all outstanding debts that are due within the current year up until the latest financial information prior to the transaction announcement. This includes accounts payable, taxes payable, short-term debt, notes payable, accrued expenses payable, current maturities of long-term debt, and current portion of capital lease obligations.
ACQUIROR COMMON EQUITY	In the Thomson Reuters Eikon database it includes par value of common stock, additional paid-in capital, and retained earnings, less foreign currency transactions and treasury shares.
ACQUIROR NET DEBT	In the Thomson Reuters Eikon database it calculated by adding the acquiror's straight debt, short-term debt, and preferred equity and subtracting cash and marketable securities
ACQUIROR CASH AND MARKETABLE SECURITIES	In the Thomson Reuters Eikon database it includes cash and the temporary investment vehicles for cash, including commercial paper and short-term government securities.
ACQUIROR EBITDA	EBITDA stands for Earnings Before Interest, Taxes, Depreciation, and Amortization. Although EBITDA and operating cash flow are not identical, EBITDA is commonly utilized as an estimate of operating cash flow since it omits particular non-cash expenditures and non-operational items. Note that in the Thomson Reuters Eikon database, Cash Flow and EBITDA are considered the same thing.
FORM OF THE DEAL	Here are 10 codes used in the Thomson Reuters Eikon database to describe different types of transactions: - M (merger): This happens when two businesses combine or when one company acquires 100% of another company's stock. - A (acquisition): This is when a company is spun off or split off and 100% of it is acquired by shareholders. - AM (acquiring of majority interest): The acquirer owns less than 50% of the target company's stock but seeks to acquire 50% or more, but less than 100%. - AP (acquiring of partial interest): The acquirer owns less than 50% of the target company's stock and seeks to acquire less than 50%, or when the acquirer owns over 50% but seeks to acquire less than 100%. - AR (acquiring of remaining interest): The acquirer owns over 50% of the target company's stock and seeks to acquire 100%. - AA (acquiring of assets): The company acquires the assets of another company, subsidiary, division, or branch. This code is used for all acquisitions when no consideration is given. - AC (acquiring of certain assets): This is when sources state that "certain assets" of a company, subsidiary, or division are acquired. - R (recapitalization): This happens when a company undergoes a leveraged recapitalization, issuing a one-time dividend (in the form of cash, debt securities, preferred stock, or assets) to shareholders to retain an equity interest in the company.

	- B (buyback): The company buys back its equity securities or securities convertible into equity, either on the open market, through privately negotiated transactions, or a tender offer. Board-authorized repurchases are included. - EO (exchange offer): A company offers to exchange new securities for its outstanding equity securities, securities convertible into equity, or non-convertible debt securities. It also includes deals where an existing loan is replaced with a new facility during a debt restructuring.
DEAL VALUE	According to the Thomson Reuters Eikon database, it is the total value of consideration paid by the acquiror, excluding fees and expenses. The value includes the amount paid for all common stock, common stock equivalents, preferred stock, debt, options, assets, warrants, and stake purchases made within six months of the announcement date of the transaction. Liabilities assumed are included in the value if they are publicly disclosed. Preferred stock is only included if it is being acquired as part of a 100% acquisition. If a portion of the consideration paid by the acquiror is common stock, the stock is valued using the closing price on the last full trading day before the announcement of the terms of the stock swap. If the exchange ratio of shares offered changes, the stock is valued based on its closing price on the last full trading date before the date of the exchange ratio change. For public target 100% acquisitions, the number of shares at the date of announcement (CACT) is used. Deal value data in the database are incomplete, only in 241 over 481 operations is available the data.

Source: Personal elaborations on information from Refinitiv Eikon Datasets

With the data we have, we can generate the following indexes. Here is a brief description of the ones we consider (Table 14):

Table 14: Indexes description

INDEX	DESCRIPTION
RETURN ON ASSETS (ROA)	The ROA is a financial ratio used to measure a company's profitability in relation to its total assets. It shows how efficiently a company uses its assets to generate profits. This ratio is commonly used to evaluate a company's asset efficiency and profitability. The formula to calculate ROA is: Net Income divided by Average Total Assets.
RETURN ON EQUITY (ROE)	Financial ratio used to measure a company's profitability in comparison to its shareholders' equity. This ratio provides insight into how efficiently a company generates profits through its equity. To calculate ROE, we divide a company's net income by its shareholders' equity.
CURRENT RATIO	liquidity ratio that evaluates a company's capacity to pay its short-term debts through its short-term assets. It helps determine the company's short-term liquidity and its ability to meet short-term obligations. A higher Current Ratio is usually viewed as positive since it indicates that the company has adequate current assets to pay off its current liabilities. However, a very high ratio could imply that the company has too much liquidity and is not using its assets efficiently. To calculate the Current Ratio, we divide the Current Assets by the Current Liabilities.
NET DEBT-TO-EQUITY RATIO	The Net Debt-to-Equity ratio serves as a valuable indicator of a company's financial leverage and its dependence on debt financing. By comparing a company's net debt to its equity, it

	provides valuable insights into its capital structure. This ratio is a useful tool for evaluating a company's financial risk as a higher ratio indicates a greater degree of financial leverage, which suggests a heavier reliance on debt financing. This could pose a risk during economic downturns or rising interest rates. Conversely, a lower ratio indicates that the company is less dependent on debt and may have less financial risk. If the ratio is negative, it means that the company's cash and temporary investment vehicles for cash exceed its debt. The formula is: Debt-to-Equity Ratio = Net Debt / Equity.
NET DEBT ON TOTAL ASSET (LEVERAGE)	Financial metric used to assess a company's financial leverage and risk. It is calculated by dividing the net debt of a company by its total assets.
CASH FLOW TO DEBT RATIO	This ratio measures a company's capability to pay off its debts by comparing its operating cash flow to its total debt. The calculation involves dividing the operating cash flow by the total debt. A higher ratio indicates a stronger ability to generate cash for repaying debts.
EBITDA MARGIN	Financial ratio that measures how profitable and efficient a company is at running its core business operations. EBITDA Margin it is calculated by dividing a company's earnings before interest, taxes, depreciation, and amortization (EBITDA) by its total revenue, then multiplying by 100. EBITDA Margin gives insights into how much of a company's revenue is available to cover non-operating expenses, taxes, and other costs. A higher EBITDA Margin indicates that a company is more efficient and profitable at generating operating profits.

Source: Ferrarese et al.,2021

3.2.2 Trends

3.2.2.1 Size, EBITDA margin, D/E, Leverage, ROA, ROE, Current Ratio

To understand the trends of Italian companies who decided to go internationally through strategic M&As, we are going to divide the periods from 1985 until 2022 into seven subperiods, each one has a duration of five years except for the first one, from 1985 to 1992, that least seven years. In Table 15, we summarize the number of operations for each sub-period.

Table 15: Number of operations per sub-period

PERIODS	N. OF OPERATIONS
1985 - 1992	14
1993 - 1997	10
1998 - 2002	66
2003 - 2007	58
2008 - 2012	65
2013 - 2017	118
2018 - 2022	150

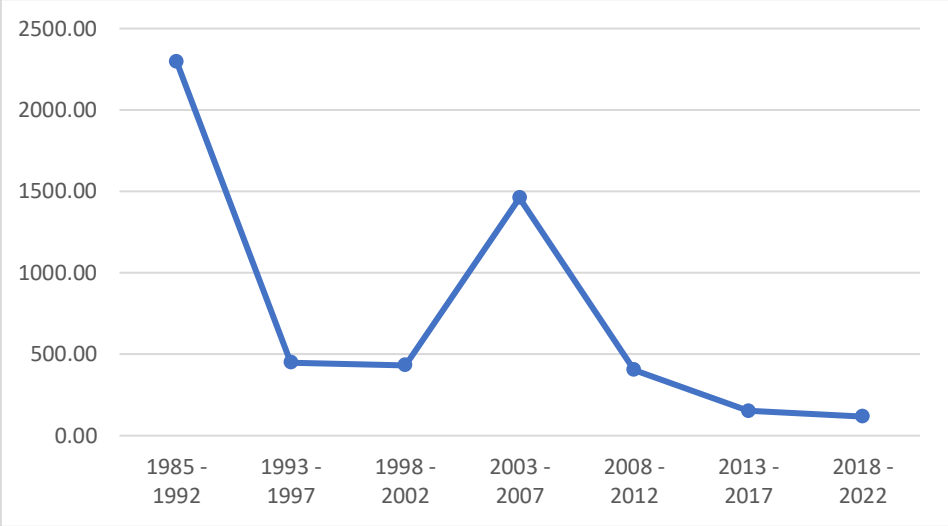
Source: Elaborations on data from Refinitiv Eikon Datasets

We evaluate a company's size by examining data such as net sales and total assets. Our reasoning is that companies tend to decrease in size over time. Additionally, we use financial ratios such as ROA and ROE to assess a company's profitability. To gain insights into a company's financial leverage, we also analyze EBITDA margin, net debt to equity, and leverage. Lastly, we examine the cash flow to debt ratio and current ratio to understand how a company's liquidity may have changed over the years.

As we can see in Figure 25 and Figure 26, the size of companies that did cross-border M&As constantly decreased over the years, moving from a median value of € 2296 million in the subperiod 1985-1992 until a median value of € 117 million of the subperiod 2018-2022. If we look at the total asset the path is even more clear and constant, with a median value that moves from € 3593 million until €162 million of the subperiod 2018-2022.

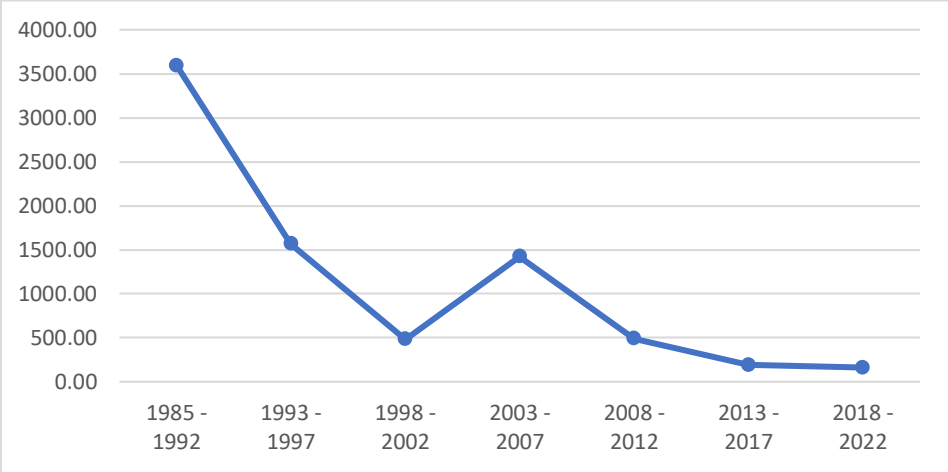
Despite the incomplete data with only 241 out of 481 operations available, it is evident that the deal value is on a decreasing trend over time. This suggests, once again, that the average size of Italian companies investing abroad through M&A operations is reducing.

Figure 25: Acquiror net sales trend last 12 months (Eur, Millions)



Source: Elaborations on data from Refinitiv Eikon Datasets

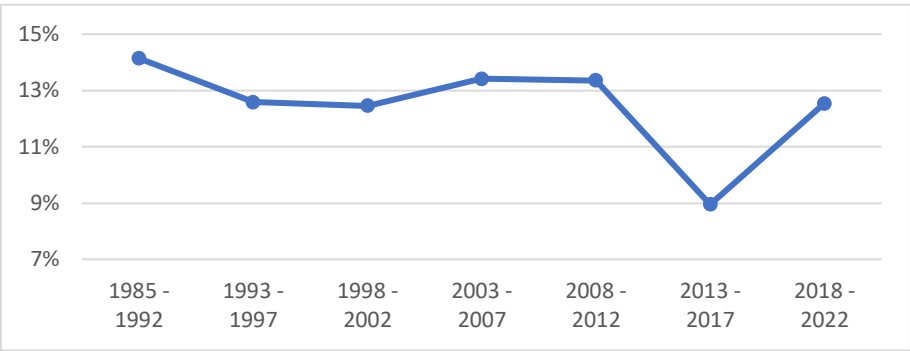
Figure 26: Acquiror total assets trend last 12 months, (Eur, Millions)



Source: Elaborations on data from Refinitiv Eikon Datasets

EBITDA margin remains fundamentally constant at around 13% except for the subperiod 2013-2017 in which it decreases at 9%.

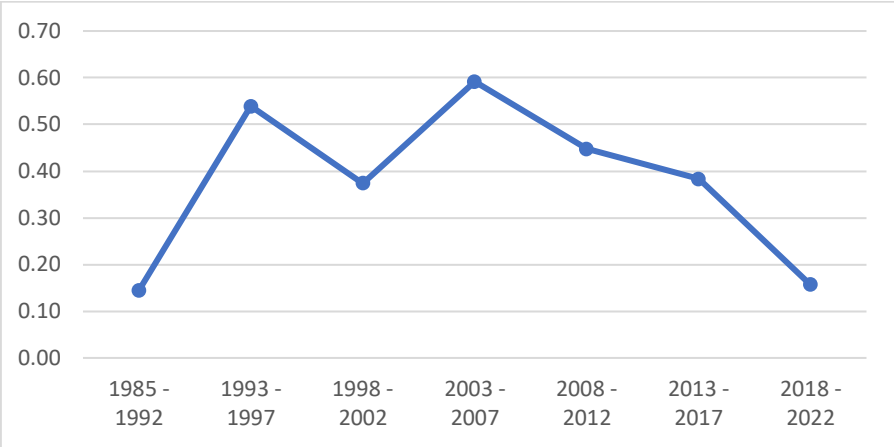
Figure 27: EBITDA margin trend



Source: Elaborations on data from Refinitiv Eikon Datasets

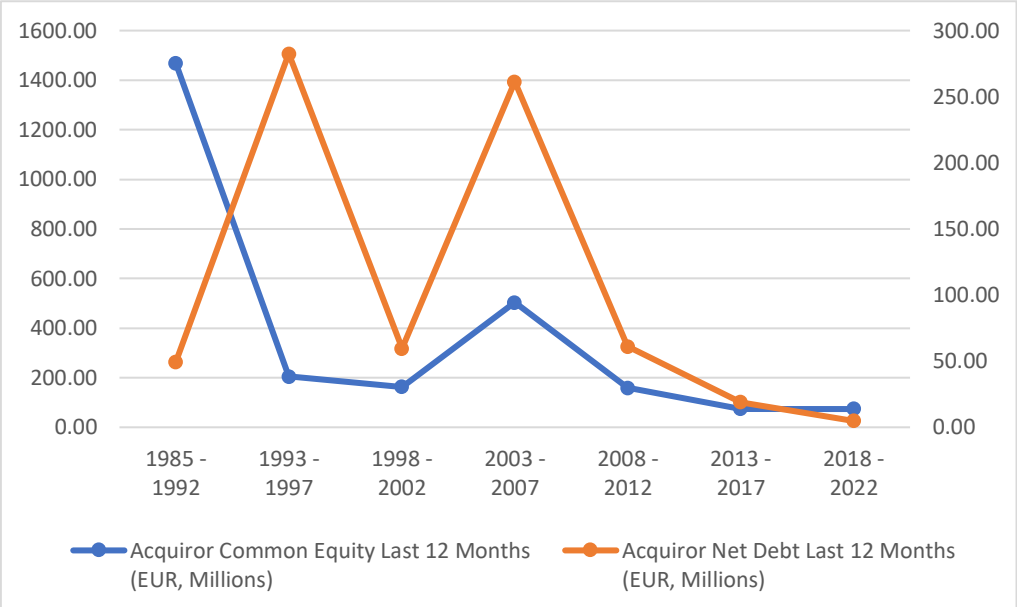
We will analyze two indexes and their composition to understand how much Italian companies rely on debt financing. They are the net debt-to-equity ratio trend (Figure 28) and net debt on total assets (Figure 30). Their compositions are compared in Figures 29 and 31, respectively. Both indexes increased until the 2003-2007 sub-period, suggesting that companies relied heavily on debt financing. However, from 2003 to 2007, companies appeared less exposed to financial risk as both indexes decreased, thus creating, in both cases, a sort of parable. Observing values that formed the ratios (Figures 29 and 31), we can see how equity and total assets followed a decreasing trend from the beginning of the period taken into consideration. Instead, the net debt (which makes up both indexes) followed a random walking pattern from 2003 to 2007 to proceed with a decreasing trend.

Figure 28:Net debt-to-equity ratio trend



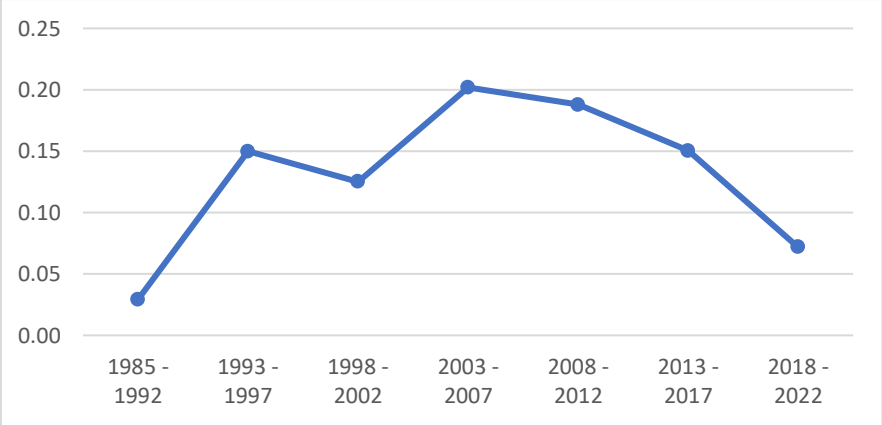
Source: Elaborations on data from Refinitiv Eikon Datasets

Figure 29: Comparing equity and net debt movements



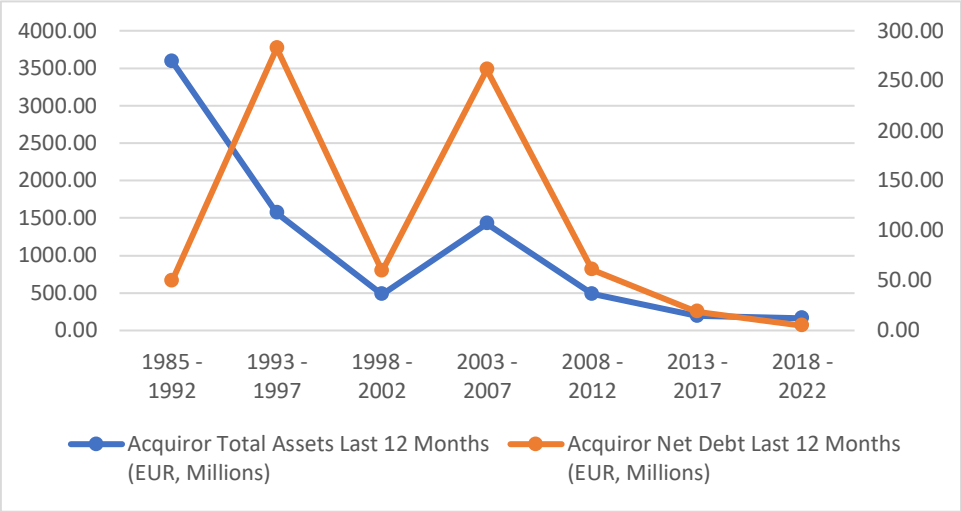
Source: Elaborations on data from Refinitiv Eikon Datasets

Figure 30: Net debt on total asset (leverage) trends



Source: Elaborations on data from Refinitiv Eikon Datasets

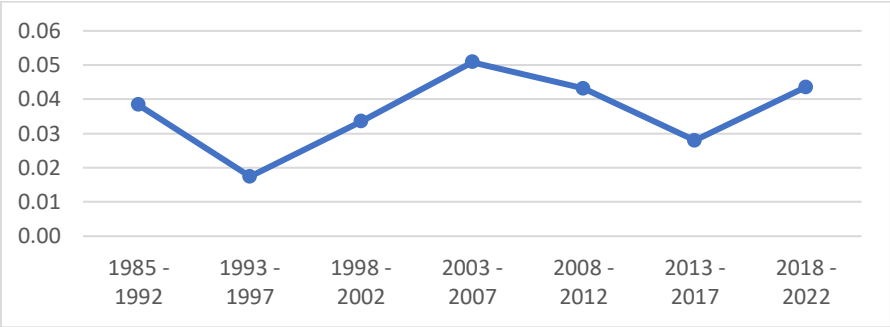
Figure 31: Comparing total asset and net debt movements



Source: Elaborations on data from Refinitiv Eikon Datasets

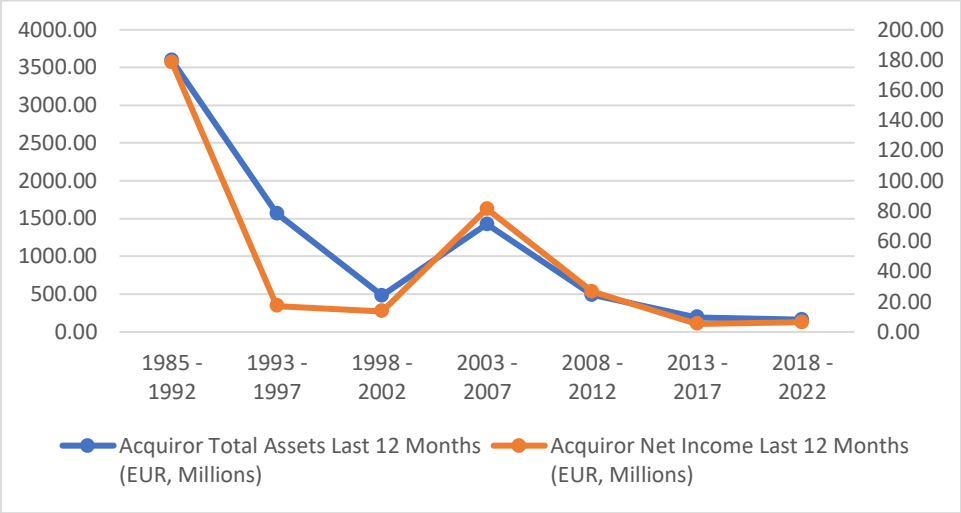
Profitability indexes ROA and ROE do not show us an outlined trend (Figures 32 and 34). ROA moves around 4% over the years, and ROE is constantly around 11%. When examining Figures 33 and 35, we can see how net income, equity, and total assets have moved together, and the logical consequence is that returns are constant over time since they are the components of the form indexes.

Figure 32: ROA trend



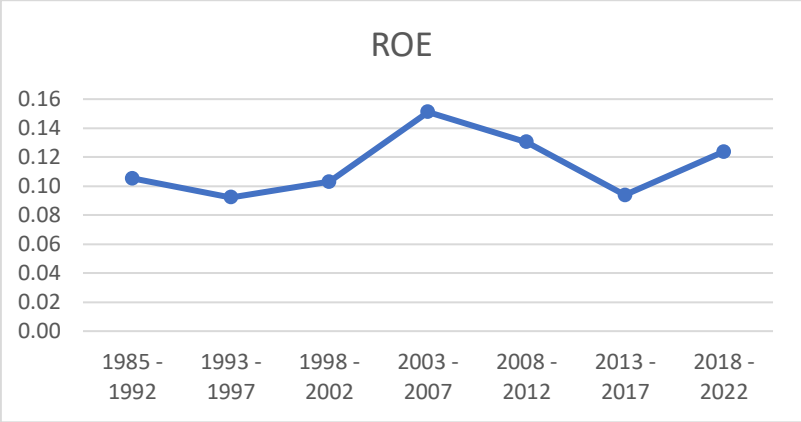
Source: Elaborations on data from Refinitiv Eikon Datasets

Figure 33: Comparing total asset and net income movements



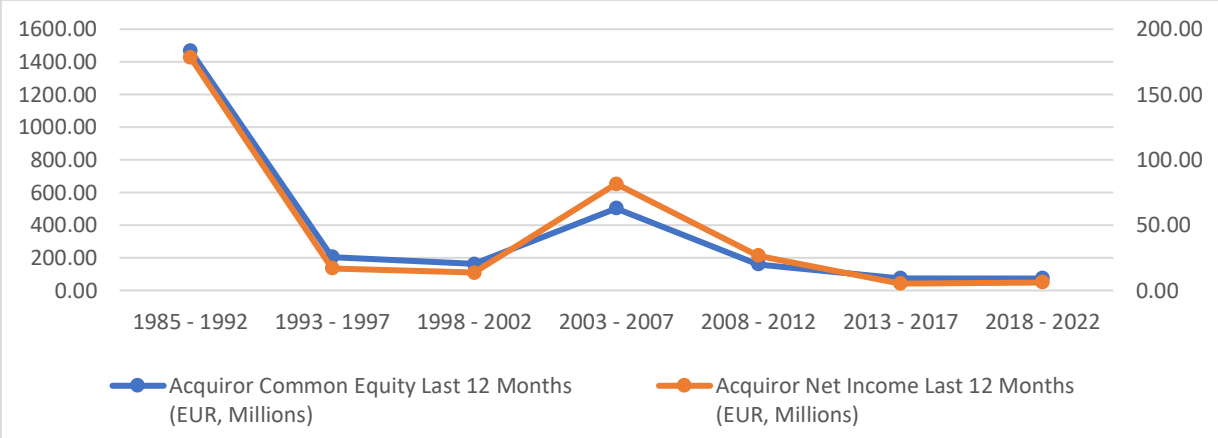
Source: Elaborations on data from Refinitiv Eikon Datasets

Figure 34: ROE trends



Source: Elaborations on data from Refinitiv Eikon Datasets

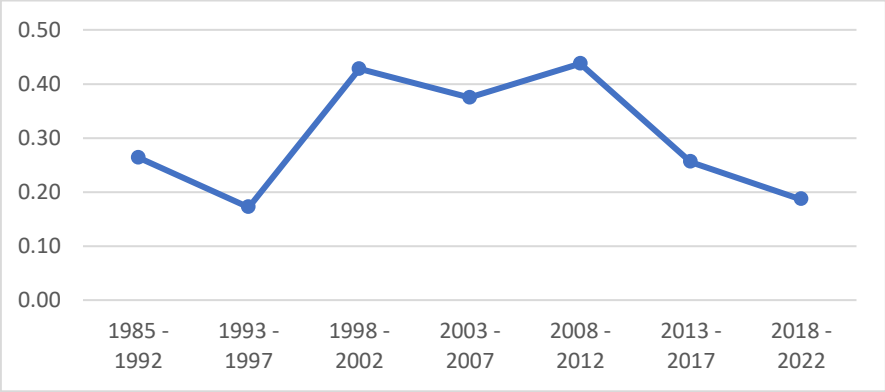
Figure 35: Comparing equity and net income movements



Source: Elaborations on data from Refinitiv Eikon Datasets

Looking at liquidity, we can see in Figure 36 how the cash flow to debt ratio follows the same path of Net D/E and Leverage (Figures 28 and 30) but with a lag of 5 years, i.e. in the first 30 years of the period, this ratio increased, and from 2008-2012 until nowadays it constantly decreases.

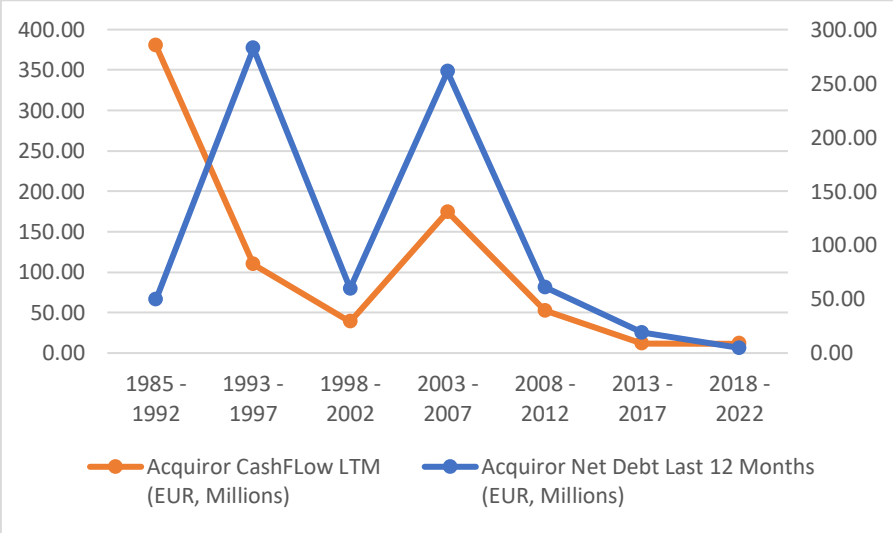
Figure 36: Cash flow to debt ratio trend



Source: Elaborations on data from Refinitiv Eikon Datasets

Upon analyzing the two components of the Cash flow to debt ratio (Figure 37), it becomes evident that the cash flow experienced a decline while the net debt was more inconsistent. The ratio started to decrease when the net debt followed a decreasing path alongside the cash flow.

Figure 37: Comparing cash flow and net debt movements



Source: Elaborations on data from Refinitiv Eikon Datasets

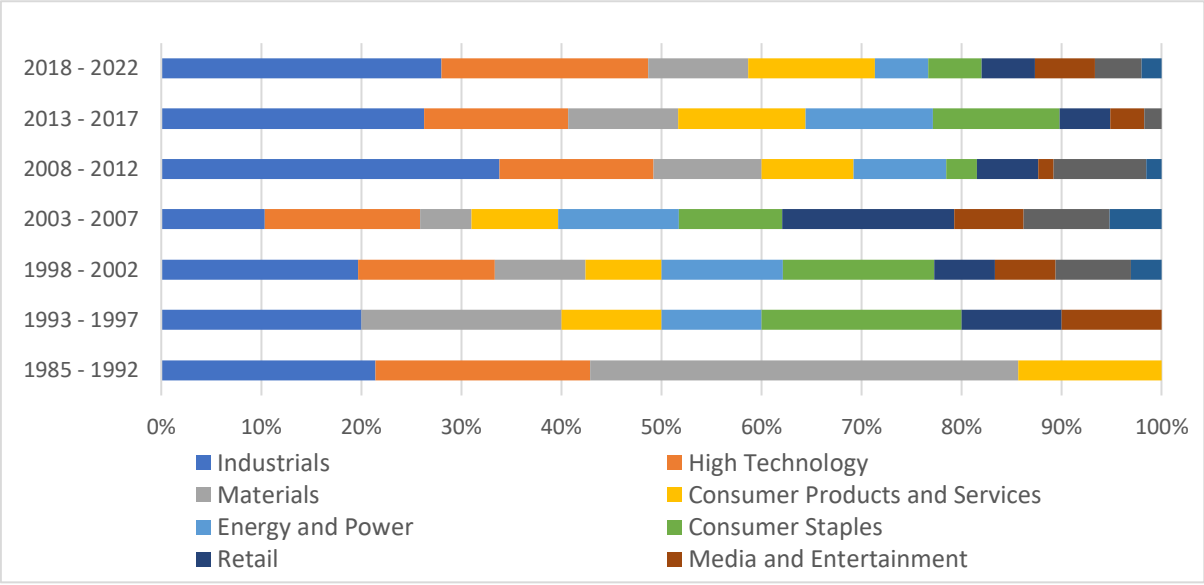
3.2.2.2 Target and Acquiror macro industry

In this section, we are primarily going to examine the industries in which Italian companies have invested in exceptional financial operations (i.e., target macro industry trends), particularly cross-border M&As. We will focus later, on the acquiring company's macro industry to gain insight into the market of businesses that shop overseas.

From the target industry side, according to Figures 38 and 39, the “industrial” sector has always been significant throughout the years. However, over the last 15 years, it has been the leading sector in which target companies were acquired. Initially, in the subperiod 1985-1992, the "materials" sector was the primary market outlet for buyers, but it has increasingly taken a back seat, with the "high technology" industry taking its place, particularly since 2000. While playing a secondary role, the "Consumer Products and Services" and "Consumer Staples" sectors are also important. Between 2003 and 2007, Italian companies made a significant surge abroad in the "Retail" sector, accounting for 17% of acquisitions in this field.

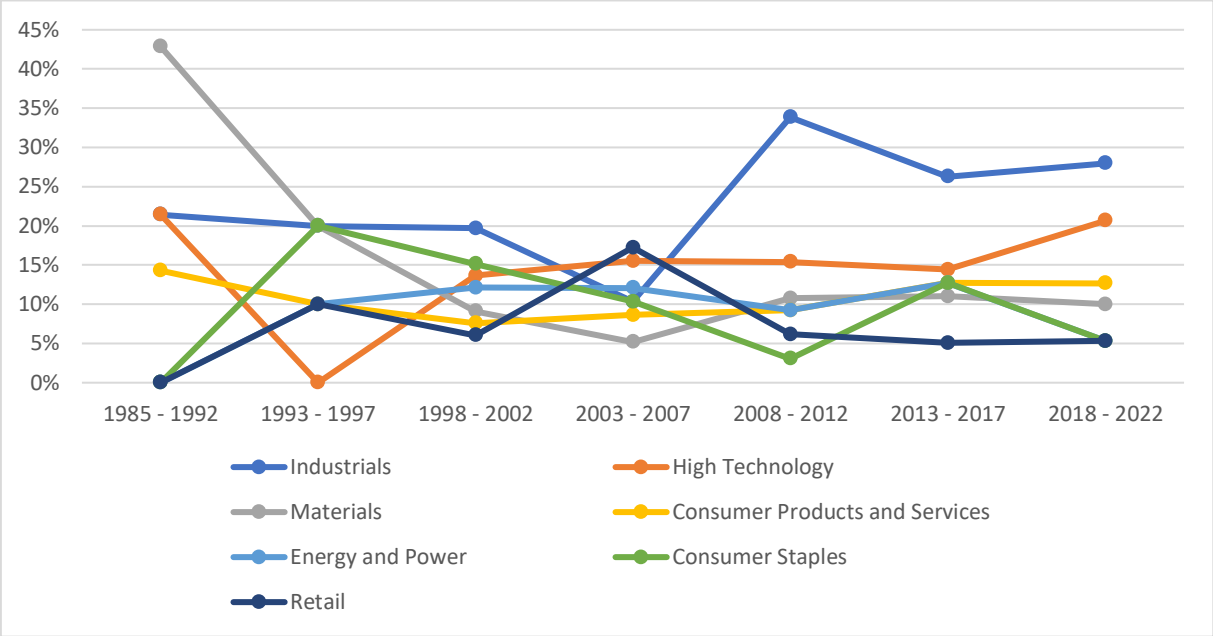
Over the last twenty years, acquisitions in the "Healthcare" sector have also played a significant role, averaging 6% of the total.

Figure 38: Target macro industry trend (% on the total)



Source: Elaborations on data from Refinitiv Eikon Datasets

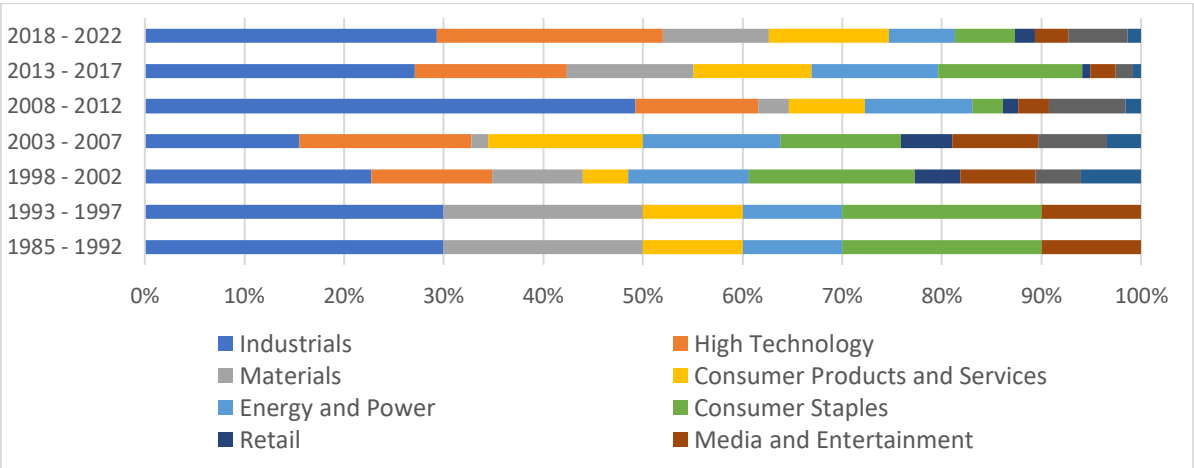
Figure 39: Target macro industry - Top 7 trends



Source: Elaborations on data from Refinitiv Eikon Datasets

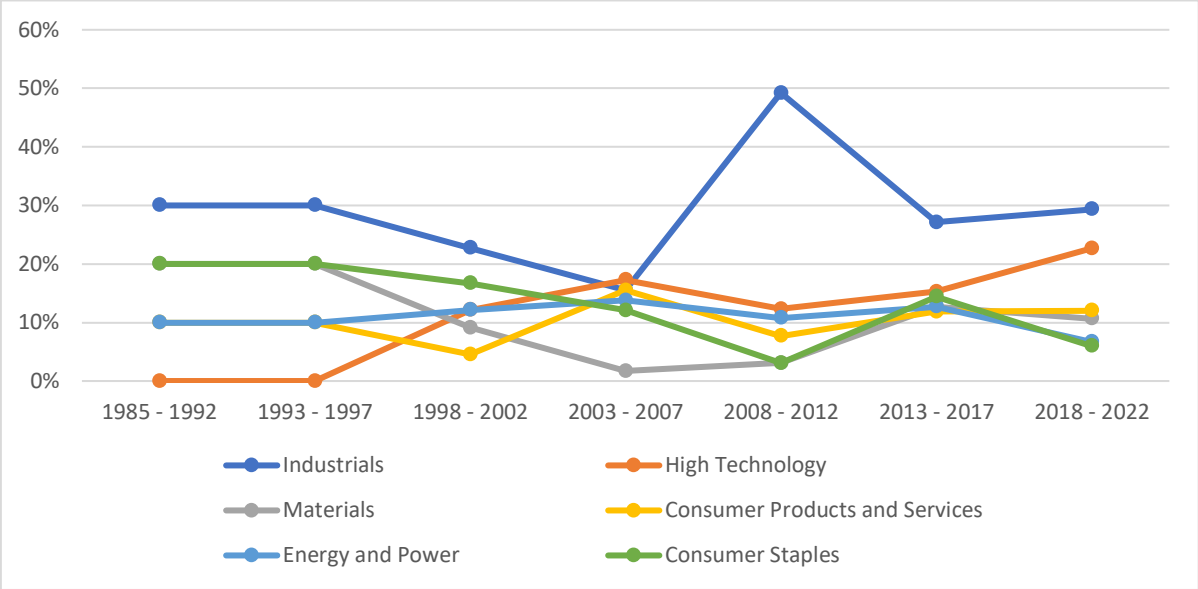
Over the years, there has been less diversity on the acquiror industry side, the "industrials" sector has dominated each sub-period except for 2003-2007. On average, companies in this field account for 23% of transactions in 37 years. Before 2000, the materials and consumer staples sectors were tied for second place. Still, their relevance has decreased due to the rise of the high technology industry, which is now the second most important. While consumer products and services and energy and power industries still play a relevant role, they account for an average of 10% of the market (Figures 40 and 41).

Figure 40: Acquiror macro industry trend (% on the total)



Source: Elaborations on data from Refinitiv Eikon Datasets

Figure 41: Acquiror macro industry - Top 6 trends

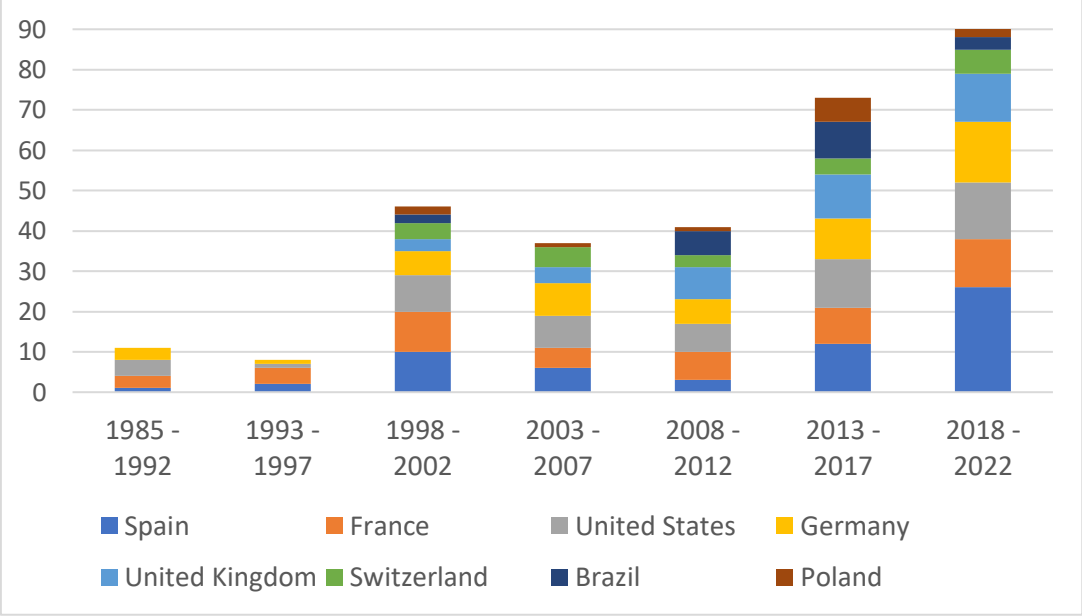


Source: Elaborations on data from Refinitiv Eikon Datasets

3.2.2.3 Target Nations

When examining Figure 42, the nations in which Italian companies prefer to acquire targets are mostly European countries, in particular, Spain, France, Germany, United Kingdom, Switzerland, and Poland. When they went overseas, they used to prefer Brazil and the United States. In particular for the US, in 37 years are made 55 operations over 481 of the sample, equal to around 11% of the total. Spain is the most appreciated country with 60 transactions, followed by France and Germany, with 50 and 49 operations, respectively.

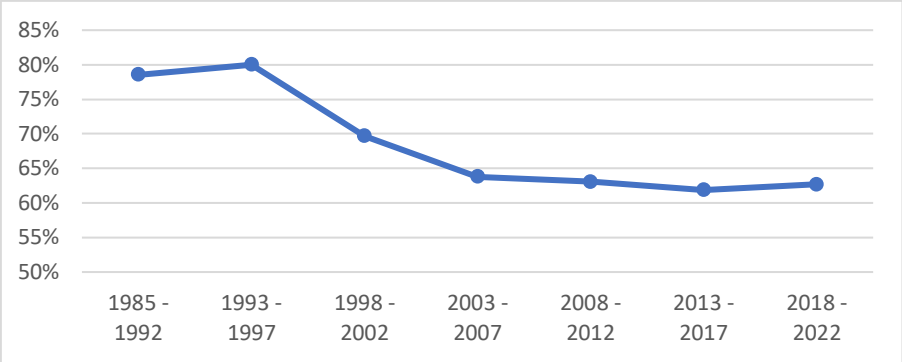
Figure 42: Top 8 target nations



Source: Elaborations on data from Refinitiv Eikon Datasets

It is essential to notice how the percentage of acquisitions made in the top 8 countries has decreased over time, moving from around 80% to about 62% (Figure 43), for the first time in the sub-period 2003-2007, an Italian company bought a Chinese target, specifically in 2005 and 2006 Luxottica Group SpA merged with three different companies in the retail and healthcare sector for an investment of over 80 million euros. Still, in 2008, Atlantia SpA merged for the first time an Italian company with a business in Chile in the industrial sector.

Figure 43: Percentage of top 8 nations on the total



Source: Elaborations on data from Refinitiv Eikon Datasets

3.2.3 Considerations on the Italian Acquirer Companies

During the last four decades, data analysis shows that Italian companies engaging in cross-border mergers and acquisitions have experienced a decreasing trend in average size. This trend is confirmed by decreasing net sales, total assets, and even median deal amounts (even if the deal values data are incomplete). Despite this, large companies such as Luxottica Group SpA, Eni SpA, Atlantia SpA, Carel Industries SpA, Autogrill SpA, Granarolo SpA, and Amplifon SpA remain top acquirors, with average net revenues of approximately 14 billion and medians of 1.6 billion. Their median EBITDA margin is around 17.5%, significantly higher than companies that completed 150 operations in the sub-period of 2018 to 2022. It should be noted that these results may have been achieved through a successful M&A strategy.

Since 2000, companies engaging in M&A operations abroad have become less indebted, although their cash flow to debt ratio has decreased. This means there is less ability to generate cash from operation activity to repay debt.

Over the past 37 years, the percentage of top nations in the total has fallen from 80% to 63%. This is due to an increase in the number of transactions and companies acquiring foreign entities, as well as a lower concentration of investment in the same countries. Companies are

also exploring potential business opportunities in countries with significant cultural differences, even though such differences can cause challenges during post-merger integration.

3.3 Organizational slack, environmental resources, and cross-border M&As

In the second section of Chapter 3, we will focus on resources and how they are related to cross-border M&As. Do bidders prefer to buy targets in the same sector or diversify their business with companies from different industries? The decision is related to the company's size, i.e., big-size firms with higher resources could prefer to decrease the business risk by exploiting diversification, and the small ones, instead, due to lack of resources and capabilities, do they prefer to buy companies in the same industry? How has this phenomenon changed over the years?

The availability of slack resources is one potential key determining factor in cross-border M&As, according to the behavioral theory of the firm (BTF). One of the major findings of the BTF is that companies with slack internal resources are more inclined to experiment and look for new business prospects in order to improve their performance (Zakaria et al., 2017). Organizational slack is a company's surplus of resources over and beyond what it requires for its ongoing operations (Alessandri et al., 2014). Although the BTF initially emphasized the firm's internal resources, a later study gave much more weight to the significance of external (environmental) resources and their accessibility. Indeed, it has been demonstrated that a firm's risk orientation, organizational cognition, strategic choices, and outcomes are all influenced by the accessibility of crucial resources inside and outside the company (Zakaria et al., 2017). The quantity of resources present in an environment is referred to as external resources, also known as environmental munificence (Wan and Yiu, 2009).

According to an article published in 2017 by Zakaria et al., firms are more likely to pursue cross-border M&A opportunities that are more institutionally and geographically distant when critical resources are more abundant (also known as munificent). Organizational slack enables greater freedom and opportunity-driven search, particularly from the perspective of internal resources, as managers are free to remove restrictions on resource allocation and adopt riskier strategies. As a result, the BTF contends that there ought to be a correlation between increased levels of slack resources and expanded organizational search initiatives. Instead, from the standpoint of external resources, managers may adopt risky tactics when the economy is doing well because booming demand, increased firm profitability, and higher stock prices typically make it simpler for organizational leaders to prove the strength and effectiveness of their

leadership. Due to this, businesses could adopt strategies that are less complementary to their core competencies and resources (Zakaria et al., 2017).

Conversely, economic downturns have a significant impact on corporate decisions as businesses face new environmental circumstances, such as diminished levels of munificence (Wan and Yiu, 2009). According to behavioral theory, organizational slack may operate as a pillow against the effects of the economic downturn, possibly defending the company. The firm's capacity to explore new things may also be impacted by variations in organizational slack. Slack may have a greater impact on acquisition behavior during economic downturns (Alessandri et al., 2014; Wan and Yiu, 2009).

When the economy grows, the firm has more access to financial resources from external sources, particularly the capital markets. The crucial function of slack financial resources is highlighted by the fact that such external finance is more difficult to get during economic downturns. As the global recession of 2008 showed, one of the biggest implications of a downturn is the credit constraint and lack of available cash. Given this buffer, organizations with more internal resources may be less inclined to limit their attention to their core operations or domestic markets. This implies that slack would encourage businesses to diversify or make overseas acquisitions in a good economy (Alessandri et al., 2014).

We have reason to believe that the firm's financial resources will likely play a more significant role in the pursuit of acquisitions during economic downturns than during happier times (Wan and Yiu, 2009). Managers may become risk-averse during an economic crisis as a result of becoming more cautious and reducing risky investments (Zona, 2012). However, because slack serves as a buffer against adverse environmental factors, businesses with more slack are somewhat shielded from these adverse consequences (Wan and Yiu, 2009; Alessandri et al., 2014).

Going deeper into the function of organizational slack in a downturn, organizational slack is once more defined as a resource cushion that enables a company to respond to internal or external challenges and start changing its strategy in light of the external environment. According to organization theory, slack often improves firm performance since it can protect a company from environmental changes or enable it to undertake risky business initiatives. The agency theory by Jensen and Meckling (1976), postulates that some managers might take advantage of slack to achieve their own objectives and, as a result, use suboptimal tactics such as excessive diversification (Wan and Yiu, 2009).

Slack's contribution to business performance is particularly significant during an environmental shock when the level of munificence is low. A firm's capacity to dip into its resources is

essential to exploit new possibilities during that time quickly and to soften the impact of a jolt. This perspective is more in accord with organization theory. High levels of organizational slack may be harmful to business performance because top managers are inclined to become less careful in their strategies and in how they use their resources. This is because the external environment is generous before and after an environmental jolt. This point of view is more in line with agency theory. Therefore, external resources are easily accessible when environmental munificence is higher before and after an environmental shock, and businesses find it simpler to obtain capital for acquisitions. (Wan and Yiu, 2009).

3.3.1 Current ratio and E/D as a proxy of organizational slack

Similar to prior research such as Cheng and Kesner (1997), Lin et al. (2009), Zakaria et al. (2017), and Alessandri et al. (2014), we use multiple measures of slack. The first metric, known as available slack or acquirer current ratio, is calculated by dividing current assets by current liabilities. The second measure is the potential slack or unabsorbed slack, and it is estimated as the reverse of the debt-to-equity ratio (E/D). Both of them are based on data from the Refinitiv Eikon database.

Based on the analysis of existing literature, we should see that Italian companies that engage in cross-border mergers and acquisitions tend to have higher current ratios and E/D ratios when they acquire companies in sectors different from their original sector. Additionally, during periods of crisis when the economy dumps and the firm has less access to financial resources from external sources, such as 2007-2009 and 2020-2021, the companies which entered into operations of cross-border M&As should have more organizational slack. Furthermore, companies that expand to culturally distant countries should tend to have higher current ratios and E/D ratios.

3.3.2 Analysis

Based on Figure 44, there are two years where the current ratio mean experienced a notable increase: 2008 and 2020. These years are also marked by two of the most challenging crises. The two years from 2008 to 2009 is commonly known as the Great Recession. This was due to the simultaneous decline in GDP, industrial output, and turnover that occurred following the collapse of the US investment bank Lehman Brothers and the increase in oil prices during the summer of 2008. The combination of rising oil prices, falling stock market values, and reduced international trade created a dangerous situation. This led to a decline in the expectations of families and businesses, and the economy experienced a significant reduction in available

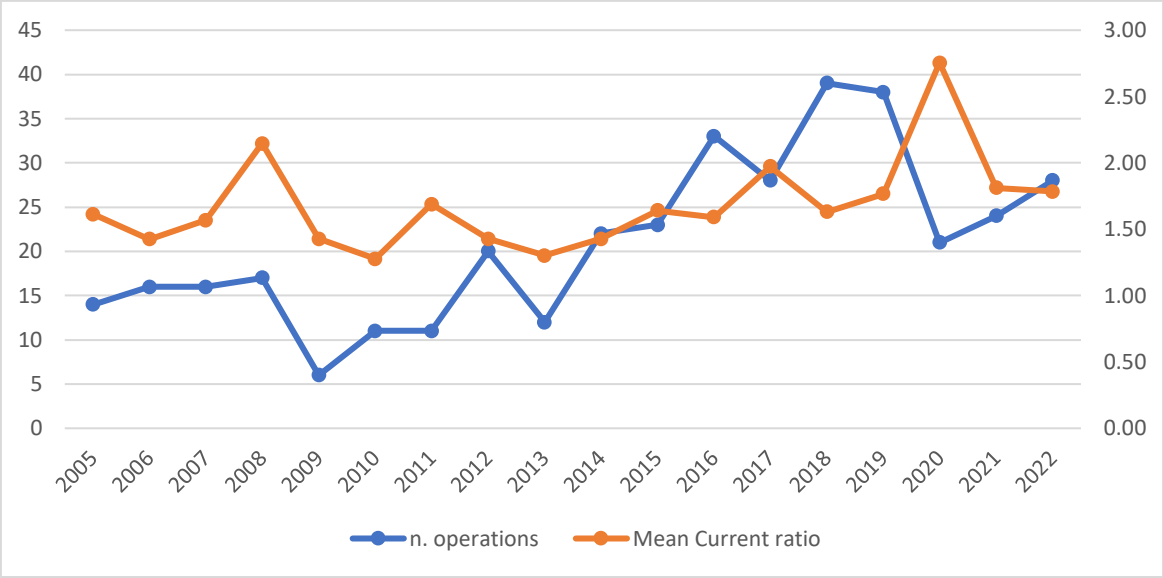
credit. As a result, the world faced its worst global recession in the past eighty years (Daveri, 2013).

The year 2020, instead, was marked by the COVID-19 pandemic, which severely impacted human health, society, and the economy. Over 160 million people were infected, and the death toll reached over 3 million. The International Monetary Fund (IMF) estimated that the global Gross Domestic Product (GDP) decreased by 3.3% - the most significant contraction since World War II. Additionally, trade was negatively affected due to restrictions on the movement of goods and people, resulting in an 8.9% drop (Banca d'Italia, 2021).

As shown in Figure 44, concurrently with the crises, the number of operations decreases, and the current ratio increases. This is in line with the existing literature described before and with our hypothesis that says that during periods of crisis when the economy dumps and the firm has less access to financial resources from external sources, the companies that entered into operations of cross-border M&As should have more organizational slack.

Moreover, we have analyzed both the mean and median of the E/D ratio. However, we did not find any evidence of a spike during crises.

Figure 44: Current ratio along years

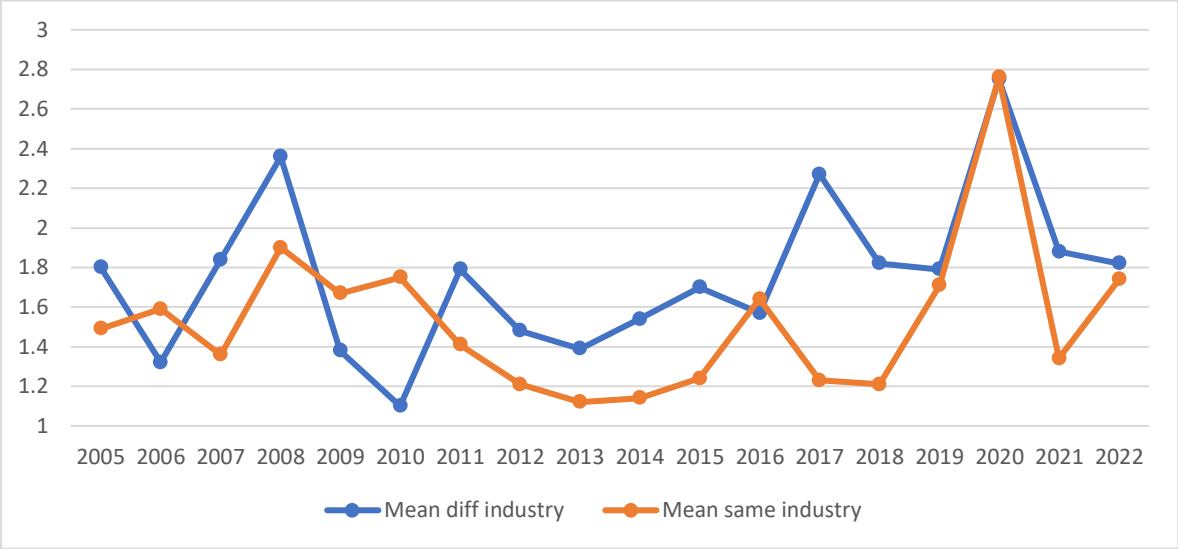


Source: Elaborations on data from Refinitiv Eikon Datasets

To test our hypothesis, we split the dataset into two groups. The first group included companies that carried out operations in different industries. For instance, if a technology company acquired a company in the industrial sector, it would be included in this group. The second group was comprised of companies that engaged in cross-border mergers and acquisitions within their respective industries.

Our analysis, as shown in Figure 45, revealed that the mean current ratio of companies that operated in the same industries was consistently higher than that of companies that operated in different industries, except for 2006, 2009, and 2010. However, the mean current ratio was equal between the two groups in 2016 and 2020.

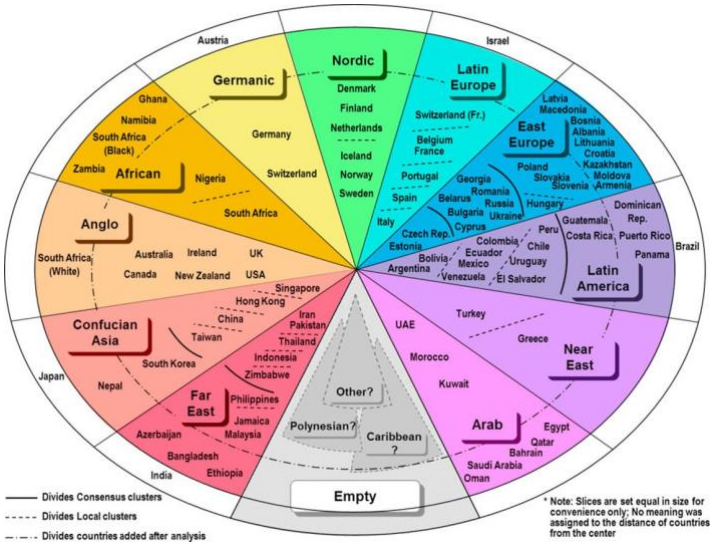
Figure 45: Differences in current ratio - same industry/different industry



Source: Elaborations on data from Refinitiv Eikon Datasets

Another hypothesis suggests that companies expanding to culturally distant countries may have higher organizational slack. To test this, we divided our data set into two groups: companies that made cross-border mergers and acquisitions in Europe and those that did so outside Europe. However, our analysis did not reveal a clear trend between the two groups. This is likely because cultural distance cannot be determined solely by geographical location, although this is an important factor. In order to accurately analyze this, we should have categorize operations by cultural distance indexes like Hofstede's Cultural Dimensions Index, The Cultural Distance Index by Kogut and Singh, or the Cultural Proximity Index. For instance, Ronen and Shenkar (2013) grouped 70 countries into 11 global clusters, and even within the same continent, such as Europe, there are distinct clusters like Germanic, Nordic, Latin Europe, and East Europe (Figure 46). Italy belongs to the Latin Europe cluster, and a country in Latin America may have the same cultural distance as a country in the Germanic cluster, even if their geographical distance is vastly different.

Figure 46: Mapping world cultures, final pie of cluster (Ronen and Shenkar)



Source: Ronen, S. & Shenkar, O. (2013)

3.3.3 Considerations of available resources, downturns, and industries

Based on the current ratio, which serves as a measure of organizational slack or available resources, we can conclude that Italian companies that engage in cross-border M&As across different industries possess higher resources than those that remain in the same industry. This could be due to the management's reluctance to enter markets where they have less expertise. Entering a different industry is riskier, and as Wan and Yiu (2009) have pointed out, having more resources can encourage management to pursue riskier acquisitions. The analysis conducted indicated that Italian companies tend to reduce their international operations during economic downturns. Those who choose to continue with such operations are usually better equipped with resources. This could be due to increased uncertainty among market players, credit constraints, and reduced availability of cash. Companies with higher internal resources are better able to afford the risks associated with international operations, while others opt for safer alternatives. It may not be wise to be fearful or pessimistic during economic downturns, as these can present the best opportunities for firms. Wan and Yiu (2009), as well as Alessandri et al. (2014), have emphasized that downturns can offer "shopping" opportunities as financially struggling competitors may be willing to sell their business at competitive prices. Companies with ample internal resources can act more aggressively and make advantageous deals during these tough times. Organizational slack can improve business performance in times when external resources are scarce. Therefore, according to Wan and Yiu (2009), an environmental shock, which may be seen as a catastrophe, could present unique business opportunities. Those who capitalize on these opportunities stand to benefit significantly.

3.4 Performance post-acquisition of acquiring companies in cross-border M&A operations

In the final section of the empirical chapter, we aim to explore whether Italian parents experienced an increase in performance following cross-border M&As between 2016 and 2018. We will focus on analyzing ROA, EBITDA margin, and Current ratio as indicators of profitability, marginality, and organizational slack, respectively. To determine whether there is a significant difference in post-acquisition performance, we will compare these figures with those of Italian companies similar in size, profitability, marginality, and industry but who did not engage in cross-border M&As. We will adopt a difference-in-differences approach combined with propensity score matching to answer these questions. This methodology will enable us to measure the causal effect of international acquisitions on business performance. Additionally, the matching procedure will help us find a comparable company that has not engaged in this type of operation but shares similar pre-existing characteristics as those that have made an acquisition.

In the final side of this section, we are going to test if the size of the company and whether the acquisition was made in the same or a different industry affected our outcomes.

3.4.1 Data description

3.4.1.1 Treated group

The treated group in this section, is a party of the group used in the precedent paragraph to understand the identikit of the Italian company that decided to conduct cross-border operations. There are some changes in this dataset. We matched the data of Refinitiv EIKON with ORBIS, a company accounts data system provided by Bureau van Dijk that contains income statement and balance sheet data on all Italian companies with up to ten years of history.

From the first database, we view and sift through all the relevant deal information such as date, deal status, form of the deal, target and acquirer name, target and acquirer industry, target and acquirer nation.

Instead, we collect complete income statement and balance sheet data from the second database pre and post-acquisition, indexes, and NACE code[4].

NACE classification uses letters to indicate the macro-category such as “Agriculture, Forestry, and Fishing”, then increasing numbers, the description of the activities becomes more and more

[4] The NACE code is a classification system used to standardize the definitions of economic and industrial activities in the Member States of the European Union

detailed, as we can see in the example in Table 16. In our matching procedure, we are going to use the macro-category.

Table 16: NACE classification

A	AGRICULTURE, FORESTRY AND FISHING
01	Crop and animal production, hunting and related service activities
01.1	Growing of non-perennial crops
01.11	Growing of cereals (except rice), leguminous crops and oil seeds

Source: Personal elaboration

In the treated group are included the operations made by Italian companies towards outside. We include listed and non-listed companies for a time period from 2016 to 2018. To calculate the average performance pre- and post-acquisition, we've taken 3 years before and after. For deals completed in 2016, we have considered 2013, 2014, 2015 as pre-acquisition years and 2017, 2018, 2019 as post-acquisition years. For 2017 deals, we have used 2014, 2015, 2016 as pre-acquisition years and 2018, 2019, 2020 as post-acquisition years. For 2018 deals, we have averaged the indexes of 2015, 2016, and 2017 for pre-acquisition performance and 2019, 2020, and 2021 for post-acquisition performance.

We are focusing on M&A transactions marked as "completed" in accordance with paragraph 3.2.1.1. Specifically, we are only looking at Italian companies engaged in outbound cross-border M&A and acquired over 50% of the target shares. This enables them to have a significant impact on the target company's strategies and decisions. To narrow down our sample, we have excluded companies operating in the financial, government and real estate sectors and only included those operating in the manufacturing and services sectors (this choice is made following other authors that did the same in their works, like Cioli et al., 2020 and Stiebale & Trax, 2011).

Financial organizations and government companies have different definitions of output and sales, making it difficult to compare with other companies. Government companies are excluded due to potential conflicts of interest between political and financial goals, weaker efficiency incentives, and stronger organizational rigidities associated with state control. This may lead to poor performance by acquirers of state-controlled companies. (Bertrand & Betschinger, 2011). Those exclusions were made in Target's macro industry and Acquiror's macro industry as well.

Between 2016 and 2018, after skimming, Italian companies completed 112 cross-border M&As. 92 companies were involved, with 10 completing multiple acquisitions during this period. Since it is not possible to isolate the effect of a single operation when the bidder has

made more than one deal in a short time, we prefer to set it apart. The only exception was the company “Trawell Co. (previous name: Safe Bag S.p.A)” which made two different operations in the same year, and we can analyze the combined effect.

Additionally, data was not available for eight of the treated firms. In situations where data was missing for one or two years before or after, instead, we included the companies anyway and used the available data to calculate an average. As a result, we were left with a total of 74 treated companies, including 25 operations in 2016, 19 in 2017, and 30 in 2018.

3.4.1.2 Control group

Our goal is to compare Italian companies in the treated group who engaged in cross-border M&As with those who did not. To achieve this, we obtained a control group from the ORBIS database consisting of Italian companies that decided against expanding internationally through M&As in the period from 2016 - 2018.

The control group for this study includes active companies, companies with unknown status, and even inactive companies. To ensure accurate comparisons of performance before and after acquisition, all firms must have available balance sheet data from 2013-2021. Inactive companies were also included to prevent survivorship bias. These companies may have gone into liquidation due to poor performance, and excluding them would create a control group composed solely of companies with good performance.

We consider companies that have Italian legal forms like “S.R.L.”, “S.R.L. a socio unico”, “S.P.A.”, and “S.P.A. a socio unico”. This enables us to access authentic balance sheet data and compare them across different firms. After identifying the list of companies involved in cross-border mergers and acquisitions during a specific period, we manually remove them from the dataset.

Moreover, we conducted a pre-matching screening to create a more comparable control group. Firstly, we determined the maximum and minimum value of the "total value of production" in the treated group and used that range to select companies for the control group. Secondly, we looked at the NACE code of the companies in the treated group and only included companies in the control group that operated in the same sector. This helped to create a control group that was more similar to the treated group.

Screening the control group using the treated group's NACE codes, involved an exclusion of businesses operating in the financial and real estate sector. After following all the necessary steps, we obtained a control group comprising 123,453 companies.

3.4.2 The empirical methodology

Based on the literature analyzed in Chapter 2, we can bring together the methods to analyze the performance after M&A using accounting data in three groups: the first method ensures that any differences between the pre and post-merger data are not due to factors other than the M&As, to do so researchers subtract the industry median from the treated sample, resulting in industry-adjusted performance measures. Therefore, they preferred to avoid the control group (Healy et al., 1992; Moeller & Schlingemann, 2005; Mantravadi & Reddy, 2008; Nicholson et al., 2016; Adedeji & Ayoush, 2017). The second method was adopted firstly by Gosh (2001), who argued that using industry-median firms as a benchmark could result in biased outcomes due to econometric issues such as measurement errors and temporary or permanent factors. Therefore, he preferred comparing the pre-and post-acquisition performance of the acquiring firm with control firms matched based on pre-acquisition performance and size. The same approach with modifications in matching techniques is used by several authors (Gugler et al., 2003; Rahman & Limmack, 2004; Stiebale & Trax, 2011; Bertrand & Betschinger, 2011; Guest et al., 2012; Edamura et al., 2014; Nicholson et al., 2016; Campagnolo & Vincenti, 2022). Finally, Rashid & Naeem (2016) and Cioli et al. (2020) adopted the third method, regression analysis, including control variables, to ensure the results were reliable and to prevent multicollinearity. To guarantee unbiased results and following the recommendations of the literature, we implemented an empirical strategy consisting of two stages:

- Propensity Score Matching (PSM): this method creates an unbiased control group by using a panel of observable pre-acquisition characteristics of the companies.
- Difference in Difference (DID) approach: this approach is used to determine the causal effect of a cross-border M&A on the bidder side.

3.4.2.1 Variables

By utilizing the ORBIS and Refinitiv Eikon databases, we were able to pinpoint each company's outcomes of interest and pre-treatment characteristics. The former is the focal point of our analysis, while the latter plays a crucial role during the matching procedure to create a control group as similar as possible to the treated one.

The literature analyzed in Chapter 2 examines how accounting data can be used to determine whether acquisitions improve a company's performance and value over the medium term.

Therefore, the output variables we are going to analyze are three: ROA[5], EBITDA margin, and Current Ratio.

ROA is a commonly used profitability metric in the fields of economics and management, as noted by Bertrand and Betschinger (2012). In paragraph 2.2, we reviewed literature related to performance post-acquisition and found that this index was analyzed in six out of fifteen papers.

Next, we will examine the EBITDA margin, which is often used as a measure of operating cash flow because it subtracts interest, taxes, depreciation, and amortization from earnings. This financial index is frequently mentioned in literature related to our topic. In fact, eight out of fifteen studies focus on it. Some of them, especially in the older works, call it operating cash flow (Healy et al., 1992; Ghosh, 2001; Gugler et al., 2003; Rahman & Limmack, 2004; Moeller & Schlingemann, 2005) some others EBITDA (Nicholson et al., 2016; Cioli et al., 2020; Adedeji & Ayoush, 2017).

In the literature analyzed for post-cross-border M&A performance, only Rashid & Naeem (2016) consider in their studies the current ratio. However, it is commonly used in literature related to organizational slack and resources related to cross-border M&As. The current ratio is calculated by dividing current assets by current liabilities and is used as a proxy for available slack, which refers to the resources readily available to management (Cheng and Kesner, 1997; Lin et al., 2009; Zakaria et al., 2017; Alessandri et al. 2014).

Following Campagnolo & Vincenti (2022), to create a control group that is as similar as possible to the treated group, we consider various pre-treatment variables such as pre-acquisition value of production, industry where companies operate, ROA, EBITDA margin, and current ratio.

Except for the NACE code, which is a way to identify the sector in which the company works, and this is constant over time, the other variables are calculated with the three periods' average before the year of acquisition. In particular, the value of production pre-acquisition defines the company size, and it is relevant to control for size-related factors that may lead to acquisition. NACE code, instead, suggests the industry where companies operate. It is important to match companies that operate in the same sector because it is more likely that they work in the same environment, have similar characteristics, and could also have similar business models.

ROA and EBITDA margin could add some information about the structural characteristics of the companies; they measure the financial performance, profitability, and marginality.

[5] calculated as profit before taxes divided by total assets, this method to determine ROA is favorite respect the one that uses net profit because it avoids distortions due to advance or deferred payment of taxes.

Finally, as pre-treatment variables, we use the current ratio as a proxy of organization slack, i.e., the available resources in the hands of management.

3.4.2.2 Difference-in-differences method

The Difference in differences (DID) approach is widely used in the post-M&A performance analysis (Gosh, 2001; Gugler et al., 2003; Rahman & Limmack, 2004; Stiebale & Trax, 2011; Bertrand & Betschinger, 2011; Guest et al., 2012; Edamura et al., 2014; Nicholson et al., 2016; Campagnolo & Vincenti, 2022). Particularly when comparing outcomes between groups that have received therapy and those that have not, Difference-in-Differences (DID) techniques are employed. To illustrate the concept of DID, consider two groups observed over two time periods. In the first period, neither group received any treatment. In the second period, only one of the groups receives treatment while the other does not (Schwerdt & Woessmann, 2020).

In our work, outcomes are observed for two groups (treated, i.e., Italian companies that made operations of cross-border M&As in the period 2016-2018, and controlled, i.e., Italian companies that did not afford those kinds of operations in the same period) and for two periods (pre-acquisition, i.e., an average of three years before the acquisition and post-acquisition, i.e., average of three years after).

The effect of the treatment on the outcome (δ_{DD}), also called the difference coefficient or average treatment effect, is given by two differences. The first one is calculated as the difference in the mean between the treated and control group after treatment. The second is calculated as the difference in the mean between the same groups but before the treatment. The average treatment effect could be written as follows:

Equation 1

$$\delta_{DD} = (\gamma_{iT,post} - \gamma_{iC,post}) - (\gamma_{iT,pre} - \gamma_{iC,pre})$$

The counterfactual treated group is the treated group outcome post-treatment if the treatment had not occurred. It would, by assumption, follow the same trend as the control group and we can define it as follows:

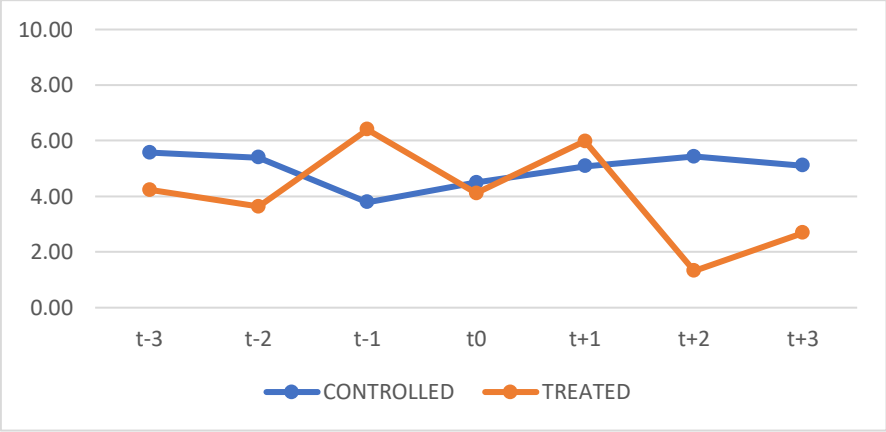
Equation 2

$$counterfactual\ outcome = \gamma_{iT,pre} + (\gamma_{iC,post} - \gamma_{iC,pre})$$

Prior to continuing with this chapter talking about the estimation of DID with a regression, it is crucial to highlight that our empirical approach is founded on strong identifying assumptions.

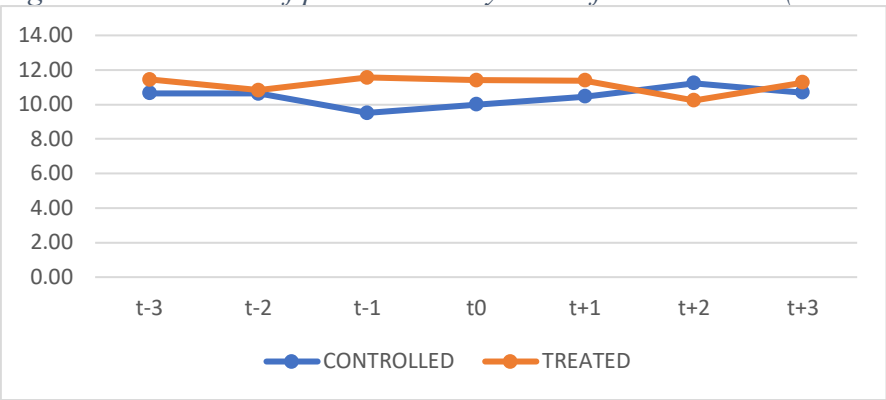
Specifically, we rely on the assumption of parallel trends, which is typical of the DID method. This means that we assume that the trends of the dependent variables over time were the same for the treated and control groups before the cross-border acquisition, i.e., the treatment. Additionally, we assume these trends would have remained parallel if not for the treatment. Finally, we argue that any differences in trends can be accounted for by the impact of the treatment. In any case, according to Schwerdt & Woessmann (2020), the DID approach's defining assumption—that the two groups are equivalent in terms of all significant unobserved factors—is less limiting than the implicit assumption made by ordinary traditional approaches. It is impossible to say that the parallel trend will continue longer because we can access data from the Orbis database up to 10 years before the last balance sheet was released. However, we checked if the assumption is valid for our outcomes of interest in the three years before the treated period, which is from 2013 to 2015 for companies that acquired in 2016, from 2014 to 2016 for one that made an acquisition in 2017, and finally, 2015 until 2017 for operations concluded in 2018. We can observe in Figure 47 that in the ROA index, there is a parallelism between the treated and control groups up to t0, except for the period t-1. Looking at Figures 48 and 49, moreover, we can affirm that the trends of EBITDA margin and current ratio up to the period of treatment (t0) are similar enough to support the assumption. Additionally, we personally checked that none of the companies in the controlled group engaged in cross-border mergers and acquisitions from 1985 to 2021. We verified this by checking the database of operations using data from Refinitiv Eikon.

Figure 47: Evidence of parallel three years before treatment (ROA)



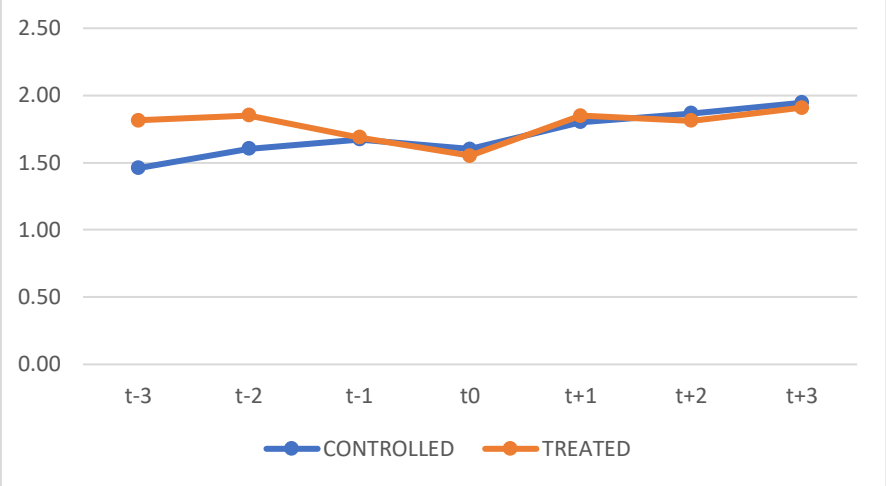
Source: Personal elaboration using data from ORBIS database

Figure 48: Evidence of parallel three years before treatment (EBITDA margin)



Source: Personal elaboration using data from ORBIS database

Figure 49: Evidence of parallel three years before treatment (current ratio)



Source: Personal elaboration using data from ORBIS database

To follow the DID approach, we are going to estimate the following equations using ordinary least squares (OLS):

Equation 3

$$Y_i = \beta_0 + \beta_1 MA_i + \beta_2 post_i + \delta(MA_i)(post_i) + \varepsilon_i$$

where:

Y_i: outcome variable such as ROA, EBITDA margin, or current ratio.

MA_{it}: dummy variable, it can take the value of 1 if the company has concluded a cross-border M&A, otherwise 0.

$post_i$: dummy variable, 1 if outcome post-cross-border M&A, otherwise 0

ε_i: company-specific errors

We used the general regression described above (equation 3) to investigate additional factors influencing our outcomes. Specifically, we focused on the size of the company and whether the acquisition was made in the same or a different sector. To achieve this, we divided our matched sample into two groups for each effect we wanted to study. For the size effect, we divided the dataset into large companies and small-medium companies. For the industry effect, we divided the matched group into companies where the acquisition was made in the same sector and those where it was made in a different one.

We made the estimation using a statistical software called Gretel. Moreover, we preferred robust standard errors to end up with unbiased results accounting for heteroskedasticity.

3.4.2.3 Propensity score matching

The idea of using this matching technique is suggested by the works of Edamura et al. (2014) and Stiebale and Trax (2011). If the treatment is not randomly assigned, the treatment group will differ from the control group on average. This leads to omitted variable bias. The problem with Omitted Variable bias is that there is almost always a missing variable that is correlated with both X and Y. This leads to bias in our results. Since we can rarely conduct economic experiments with randomly assigned variables, we turn to quasi-experimental techniques that mimic the effects of randomization. One such technique is Propensity Score Matching (PSM). With the PSM, we match companies from the treatment group to those in the control group based on their propensity score. This helps us create matched pairs, where companies with similar P scores are paired. We can then compare these pairs to determine an unbiased effect.

The propensity score is a numerical value that represents the likelihood of receiving treatment. Essentially, it indicates the probability that a company that did not make operation of cross-border M&As in the control group will be placed in the treatment group. This means that the treatment variable equals one, given the observable characteristics. In other words, it reflects the probability of being in the treatment group based on observable characteristics, and we can define it as follows:

Equation 4

$$Propenity\ Score = P(T_i = 1|X)$$

The observable characteristics we took into consideration are the pre-acquisition value of production, the industry where companies operate (through NACE code), ROA, EBITDA margin, and current ratio.

Except for the NACE code, which is a way to identify the sector in which the company works, and this is constant over time, the other variables are calculated with the three periods' average before the year of acquisition.

In order to use the PSM approach, we must first ensure that certain assumptions are met. If these assumptions are satisfied, we can conclude that our results will not be biased by omitted variables, and we will have an unbiased estimate of the effect we are studying. Therefore, it is essential to understand the assumptions and be able to argue whether or not they hold before using this method. The first assumption is called selection on observables, which means that the treatment is determined solely by observable characteristics. If there are unobservable factors that influence whether or not some companies go abroad through M&As, then we have a selection of unobservables, and the assumption is not met. Since it is impossible to test and check unobservable characteristics, this assumption is not verifiable; however, following the work of Stiebale & Trax (2011), including a broad number of covariates helps to justify the validity of the approach.

The second assumption is called "common support", which requires that there are comparable individuals in both the treatment and control groups. We will match individuals based on their propensity score, so we need to find people with similar observable characteristics in both groups. If we cannot find comparable individuals, the assumption is unmet. Regarding this assumption, it is important to note that having more than 120000 companies in the control group helps us find the best match for each company in the treatment group. With such a large sample size, it was possible to identify companies in the control group that have similar pre-treatment characteristics to each member of the treated group. As a result, we were able to meet the assumption of "common support".

Our empirical methodology is based on the idea that since there is a lot of similarity between the treated and control groups, any differences observed can be attributed to the effect of acquiring a company abroad or not. This difference will be certified through the DID approach. To calculate the propensity score, we perform a regression of the treatment variable on the observable characteristics X_i.

Equation 5

$$T_i = \beta_0 + \beta_1 NACE_i + \beta_2 sales_i + \beta_3 ROA_i + \beta_4 EBITDA_i + \beta_5 CR_i + \varepsilon_i$$

where

T_i: treatment variable

$NACE_i$: industry where companies operate identified through NACE code

$sales_i$: pre-acquisition value of production, an average of three years before the deal
ROA_i: pre-acquisition Return on Asset, an average of three years before the deal
$EBITDA_i$: pre-acquisition EBITDA margin, an average of three years before the deal
CR_i: pre-acquisition Current Ratio, an average of three years before the deal

This allows us to generate a predicted value for the treatment variable. This predicted value represents the probability of being in the treatment group, based on the observable characteristics X_i in our data set.

Equation 6

$$Predicted\ Treatment: \hat{T} = \widehat{\beta_0} + \widehat{\beta_\iota}\, X_i$$

Finally, we can calculate the propensity score as follows:

Equation 7

$$P(T_i = 1|X) = \hat{T} = \widehat{\beta_0} + \widehat{\beta_\iota}\, X_i$$

Assuming conditional independence, the predicted outcome for the comparison group offers a solid basis to establish the counterfactual result. Given the set of observable control variables that are unaffected by the treatment, this assumption implies that the potential result must be independent of the treatment assignment (Stiebal & Trax, 2011).
When dealing with a binary dependent variable, such as the treatment variable (T_i), it is crucial to use appropriate models. Binary dependent variable models, like the linear probability model, logit model, or probit model, should be considered. For generating predicted probabilities, the probit model is often preferred. The P score is the predicted probability generated from a probit model of the treatment variable, which is regressed on independent variables from the dataset. We used a probit model and independent variables from our dataset to generate the predicted probabilities. It's important to use a probit model for this purpose because predicted probabilities from a linear probability model could be irrational. They could be less than zero or greater than one, which is not acceptable. Therefore, we cannot use a linear probability model to generate the P score.
In order to create the control group, we adopt the Nearest Neighbor matching procedure, i.e., each treatment individual matched to the most similar control individual according to p-score.

3.4.3 Empirical results: matched sample

In this paragraph, we are going to test our hypothesis regarding the effect on the performance of cross-border M&As, particularly the effect on ROA, EBITDA margin, and current ratio. Moreover, we will test if the size of the company and whether the acquisition was made in the same or a different sector affected our outcomes.

3.4.3.1 ROA

The first ratio we are going to analyze is the ROA; according to the literature and as we had seen in Table 9, four papers found a negative effect of cross-border operation on ROA (Bertrand & Betschinger, 2011; Ashfaq et al., 2014; Nicholson et al., 2016; Cioli et al., 2020) the one made by Cioli et al., 2020 refers to Italian companies. Another paper suggests no significant effect (Rashid & Naeem, 2016), and the last one shows a positive effect just for high-tech companies (Bertrand & Betschinger, 2011). According to our results, we can see how the Average Treatment Effect (ATE) is negative but not statistically significant (in Table 17, it is called "interaction_term"). It means that, although not significant (B= -2,12%; t= -1,09; p>0.1), the companies that conclude cross-border M&As push an effect of -2,12%. This result is in line with the literature and, in particular, with work with Italian companies made by Cioli et al. (2020), they found a negative effect -2.13% after two years -2.52% after three years. The non-significative of the coefficient of MA and the closeness to 0 suggests the goodness of the matching because it means there is no significant difference, except for the treatment, between being in the treated group or in the control group.

Table 17: DID estimation, outcome variable ROA

```
Modello 21: OLS, usando le osservazioni 1-296
Variabile dipendente: ROA
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                  coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const              4.91906      1.06554      4.617    5.85e-06 ***
  MA                 0.0658784    1.41604      0.04652  0.9629
  post               0.236910     1.35393      0.1750   0.8612
  interaction_term  -2.11950      1.94033     -1.092    0.2756

Media var. dipendente   4.540583   SQM var. dipendente     8.345154
Somma quadr. residui    20337.97   E.S. della regressione  8.345692
R-quadro                0.010042   R-quadro corretto      -0.000129
F(3, 292)               0.937436   P-value(F)              0.422902
Log-verosimiglianza    -1046.029   Criterio di Akaike      2100.058
Criterio di Schwarz     2114.819   Hannan-Quinn            2105.968
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

3.4.3.2 EBITDA margin

The second margin we are going to analyze is the EBITDA margin, as we have seen in Table 9 of the chapter where we analyzed the literature. Three papers analyzed this ratio. One of them

found a positive effect (Cioli et al., 2020), one negative (Adedeji & Ayoush, 2017), and one non-significative (Nicholson et al., 2016).

The EBITDA margin is often used as a proxy of a company's operating cash flow. Five papers have analyzed this latter index and come to different conclusions. Two of them found a positive effect (Healy et al., 1992; Rahman & Limmack, 2004), while two others found a negative effect (Gugler et al., 2003Moeller & Schlingemann, 2005). The last paper found a positive effect when the acquisition was made using cash but a negative effect when using stock acquisition (Ghosh, 2001). Even if not significant, the Average Treatment Effect (ATE) is negative with a percentage of -0,98% (B= -0,98%; t= -0,30; p>0.1).

Table 18: DID estimation, outcome variable EBITDA margin

```
Modello 22: OLS, usando le osservazioni 1-296
Variabile dipendente: EBITDA
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                   coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const              10.2650       1.48277      6.923     2.81e-11 ***
  MA                  1.35682      2.16595      0.6264    0.5315
  post                0.500405     2.15903      0.2318    0.8169
  interaction_term   -0.980158     3.25093     -0.3015    0.7632

Media var. dipendente   10.94860   SQM var. dipendente     13.92042
Somma quadr. residui    57091.15   E.S. della regressione  13.98276
R-quadro                0.001284   R-quadro corretto      -0.008977
F(3, 292)               0.138915   P-value(F)              0.936675
Log-verosimiglianza    -1198.788   Criterio di Akaike      2405.577
Criterio di Schwarz     2420.338   Hannan-Quinn            2411.487
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

The EBITDA margin could be a misleading index to determine long-term profitability as its worst performance can be dictated by investments in R&D or advertising or even by hiring new staff more skillful and not necessarily by a worsening of profitability. While these costs may not have an immediate beneficial effect, they could be the key ingredient for better margins and a long-term competitive advantage.

3.4.3.3 Current Ratio

In the literature analyzed for post-cross-border M&A performance, only Rashid & Naeem (2016) considered the current ratio in their studies and found a non-significative effect. However, it is commonly used in the literature related to organizational slack and resources related to cross-border M&As. The current ratio is calculated by dividing current assets by current liabilities and is used as a proxy for available slack, which refers to the resources readily

available to management (Cheng & Kesner, 1997; Lin et al., 2009; Zakaria et al., 2017; Alessandri et al., 2014).

According to the results shown in Table 19, we can see how the difference coefficient is –0,21 and not significant (B= -0,21; t= -0,63; p>0.1), so there is moderate effect.

Even in this regression, the non-significative of the coefficient of MA and the closeness to 0 suggests the goodness of the matching technique because it means there is no significant difference between being in the treated group or the control group, except for the treatment.

Table 19: DID estimation, outcome variable Current Ratio

```
Modello 23: OLS, usando le osservazioni 1-296
Variabile dipendente: CR
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                  coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const              1.57895     0.128662     12.27      3.37e-28 ***
  MA                 0.185750    0.186929      0.9937    0.3212
  post               0.292694    0.239326      1.223     0.2223
  interaction_term  -0.213300    0.337873     -0.6313    0.5283

Media var. dipendente   1.764852   SQM var. dipendente     1.450365
Somma quadr. residui    616.6836   E.S. della regressione  1.453248
R-quadro                0.006230   R-quadro corretto      -0.003980
F(3, 292)               0.756931   P-value(F)              0.519090
Log-verosimiglianza    -528.6373   Criterio di Akaike      1065.275
Criterio di Schwarz     1080.036   Hannan-Quinn            1071.185
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

3.4.3.4 Results based on the size of the bidder company

In order to go more in-depth with analyses and better understand the phenomena of cross-border M&As made by Italian acquirers, we divide the matched sample into two subgroups. The division is made following the EU recommendation 2003/361 that stated the main factors determining whether an enterprise is an SME. Notably, it considers three alternative parameters: staff headcount, turnover, or balance sheet total. We chose turnover to group our sample. According to EU recommendation, we define SME companies with sales minus or equal to €50 million and large companies over this amount.

As we can see in Tables 20 and 21, the negative effect of the ROA in large companies is lower in comparison to SME ones. Indeed, the ATE of large companies is -1,37% instead of -3,69% for the SME. In both cases, however, the estimation is not significant.

Table 20: DID estimation, outcome variable ROA (Large companies)

```
Modello 2: OLS, usando le osservazioni 1-200
Variabile dipendente: ROA
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                    coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const               4.52869      0.638064      7.098     2.27e-11 ***
  MA                  1.58498      1.15703       1.370     0.1723
  post                0.173147     1.08941       0.1589    0.8739
  interaction_term   -1.36780      1.75426      -0.7797    0.4365

Media var. dipendente   5.065800   SQM var. dipendente     6.186685
Somma quadr. residui    7539.713   E.S. della regressione  6.202252
R-quadro                0.010113   R-quadro corretto      -0.005039
F(3, 196)               0.655450   P-value(F)              0.580430
Log-verosimiglianza    -646.7499   Criterio di Akaike      1301.500
Criterio di Schwarz     1314.693   Hannan-Quinn            1306.839
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

Table 21: DID estimation, outcome variable ROA (SME companies)

```
Modello 1: OLS, usando le osservazioni 1-96
Variabile dipendente: ROA
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                    coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const               5.73235      3.04326       1.884     0.0628  *
  MA                 -3.09892      3.64455      -0.8503    0.3974
  post                0.369750     3.54565       0.1043    0.9172
  interaction_term   -3.68553      4.66985      -0.7892    0.4320

Media var. dipendente   3.446382   SQM var. dipendente     11.58830
Somma quadr. residui    12037.76   E.S. della regressione  11.43876
R-quadro                0.056411   R-quadro corretto       0.025642
F(3, 92)                2.041538   P-value(F)              0.113509
Log-verosimiglianza    -368.1280   Criterio di Akaike      744.2560
Criterio di Schwarz     754.5133   Hannan-Quinn            748.4022
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

Regarding the EBITDA margin, we can see the same path of ROA; cross-border M&As had a negative impact mainly on SME companies with respect to large ones. Tables 22 and 23 summarize the results of the regression, and we can see that the impact on large companies is slightly negative but not significative -0,27% (B= -0,27%; t= -0,08; p>0.1), the impact on SME firms, instead, is higher negative but not significative -2,45% (B= -2,45%; t= -0,34; p>0.1).

Table 22: DID estimation, outcome variable EBITDA margin (Large companies)

```
Modello 3: OLS, usando le osservazioni 1-200
Variabile dipendente: EBITDA
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                   coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const              10.2494       1.53781      6.665     2.62e-10 ***
  MA                  2.60867      2.42227      1.077     0.2828
  post               -0.262067     2.14615     -0.1221    0.9029
  interaction_term   -0.273897     3.36134     -0.08148   0.9351

Media var. dipendente   11.35425   SQM var. dipendente     11.86099
Somma quadr. residui    27681.55   E.S. della regressione  11.88412
R-quadro                0.011229   R-quadro corretto      -0.003905
F(3, 196)               0.736143   P-value(F)              0.531621
Log-verosimiglianza    -776.8081   Criterio di Akaike      1561.616
Criterio di Schwarz     1574.809   Hannan-Quinn            1566.955
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

Table 23: DID estimation, outcome variable EBITDA margin (SME companies)

```
Modello 2: OLS, usando le osservazioni 1-96
Variabile dipendente: EBITDA
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                   coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const              10.2975       3.31961      3.102     0.0026  ***
  MA                 -1.25122      4.40927     -0.2838    0.7772
  post                2.08889      5.00052      0.4177    0.6771
  interaction_term   -2.45153      7.23142     -0.3390    0.7354

Media var. dipendente   10.10349   SQM var. dipendente     17.49199
Somma quadr. residui    28865.94   E.S. della regressione  17.71328
R-quadro                0.006922   R-quadro corretto      -0.025461
F(3, 92)                0.204814   P-value(F)              0.892827
Log-verosimiglianza    -410.1094   Criterio di Akaike      828.2189
Criterio di Schwarz     838.4763   Hannan-Quinn            832.3651
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

For the current ratio, the pattern is still the same. Seems that large companies do not have any negative effect due to cross-border M&As, and SME firms were affected by a decrease in the current ratio in the three years after the deal. The ATE for large companies is 0,04 instead of –0,74 on the SME. In both cases, however, the estimation is not significant (Tables 24 and 25).

Table 24: DID estimation, outcome variable Current Ratio (Large companies)

```
Modello 4: OLS, usando le osservazioni 1-200
Variabile dipendente: CR
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                  coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const             1.44057      0.0897107    16.06      1.38e-37 ***
  MA                0.133547     0.131931      1.012     0.3127
  post              0.146473     0.131227      1.116     0.2657
  interaction_term  0.0411133    0.239220      0.1719    0.8637

Media var. dipendente   1.590855   SQM var. dipendente     0.847129
Somma quadr. residui    140.2043   E.S. della regressione  0.845771
R-quadro                0.018231   R-quadro corretto       0.003204
F(3, 196)               1.054010   P-value(F)              0.369839
Log-verosimiglianza    -248.2660   Criterio di Akaike      504.5321
Criterio di Schwarz     517.7253   Hannan-Quinn            509.8712
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

Table 25: DID estimation, outcome variable Current Ratio (SME companies)

```
Modello 3: OLS, usando le osservazioni 1-96
Variabile dipendente: CR
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                  coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const             1.86726      0.347752     5.370     5.89e-07 ***
  MA                0.294507     0.499206     0.5900    0.5567
  post              0.597319     0.675367     0.8844    0.3788
  interaction_term -0.743326     0.907289    -0.8193    0.4147

Media var. dipendente   2.127345   SQM var. dipendente     2.198259
Somma quadr. residui    454.3922   E.S. della regressione  2.222396
R-quadro                0.010195   R-quadro corretto      -0.022081
F(3, 92)                0.294116   P-value(F)              0.829554
Log-verosimiglianza    -210.8395   Criterio di Akaike      429.6790
Criterio di Schwarz     439.9364   Hannan-Quinn            433.8252
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

Empirical findings show that cross-border M&A typically have no significant effects on average. However, the negative impact is more pronounced when the acquirer is an SME company than a large one. The differences in ROA margins, EBITDA margin, and current ratio between them could be due to the ability of large companies to attract managers with better skills for post-merger processes. It could also be attributed to the greater resources that large companies have at their disposal, which may be the key to managing integration processes successfully. The resource-based view and behavioral theory of the firm suggest that economic resources are essential for companies to adapt effectively to internal and external changes (Bozos et al., 2021).

3.4.3.5 Results based on target macro-industry

In order to gain a deeper understanding of cross-border M&As made by Italian acquirers, we divided the matched sample into two other subgroups. The first one is composed of companies

that conclude deals in the same macro industry, i.e., bidder and target operate in the same industry. The second group, instead, is built up of firms that conduct cross-border M&As in different sectors. Those data are taken from the Refinitiv Eikon database.

The idea behind this further research is that management of companies that made acquisitions in the same industry had better knowledge about the target's potentiality, they are able to exploit better potential synergies, and there is less probability of overpaying businesses.

On the other hand, companies that diversify their business can take advantage of new business opportunities, potentially with higher marginality, while also reducing business risk by expanding their activities and diversifying.

As we can see in Tables 26 and 27, the negative effect of the ROA in companies that bought targets in the same industry is lower in comparison to the other group, i.e., the one composed of firms that conclude deals in different sectors. Indeed, the ATE of the first group is -1,58% instead of -3,57% for the second one. In both cases, the estimation is not significant (B= -1,58% t= -0,73, p>0.1 and B= -3,57%, t= -1,36, p>0.1).

Table 26: DID estimation, outcome variable ROA (Same industry)

Modello 1: OLS, usando le osservazioni 1-256
Variabile dipendente: ROA
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

	coefficiente	errore std.	rapporto t	p-value
const	4.91906	1.06668	4.612	6.36e-06 ***
MA	-0.861366	1.53986	-0.5594	0.5764
post	0.236910	1.35538	0.1748	0.8614
interaction_term	-1.58208	2.17258	-0.7282	0.4672

Media var. dipendente	4.340410	SQM var. dipendente	8.494415
Somma quadr. residui	18178.13	E.S. della regressione	8.493259
R-quadro	0.012034	R-quadro corretto	0.000272
F(3, 252)	0.953392	P-value(F)	0.415384
Log-verosimiglianza	-908.8863	Criterio di Akaike	1825.773
Criterio di Schwarz	1839.953	Hannan-Quinn	1831.476

Note: SQM = scarto quadratico medio; E.S. = errore standard

Source: Personal elaboration using GRETL

Table 27: DID estimation, outcome variable ROA (Different industry)

```
Modello 1: OLS, usando le osservazioni 1-188
Variabile dipendente: ROA
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                  coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const              4.91906      1.06975      4.598     7.90e-06 ***
  MA                 2.56944      1.91421      1.342     0.1812
  post               0.236910     1.35929      0.1743    0.8618
  interaction_term  -3.57053      2.61692     -1.364     0.1741

Media var. dipendente   5.204363   SQM var. dipendente     8.008288
Somma quadr. residui    11860.24   E.S. della regressione  8.028563
R-quadro                0.011054   R-quadro corretto      -0.005070
F(3, 184)               0.860034   P-value(F)              0.462929
Log-verosimiglianza    -656.3439   Criterio di Akaike      1320.688
Criterio di Schwarz     1333.634   Hannan-Quinn            1325.933
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

Regarding the EBITDA margin, we found no significant effect; however cross-border M&As negatively impacted companies that bought targets in the same industry and positively impacted firms that concluded deals with businesses run in a different sector. Tables 28 and 29 summarize the results of the regression; the negative impact, although not significative, is -1,75% (B= -1,75%; t= -0,49; p>0.1), the positive impact, although not significative, reaches the +1,10% (B= 1,10%; t= 0,21; p>0.1).

Table 28: DID estimation, outcome variable EBITDA margin (Same industry)

```
Modello 2: OLS, usando le osservazioni 1-256
Variabile dipendente: EBITDA
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                  coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const             10.2650       1.48436      6.915     3.82e-11 ***
  MA                 0.707927     2.49186      0.2841    0.7766
  post               0.500405     2.16134      0.2315    0.8171
  interaction_term  -1.75258      3.57707     -0.4899    0.6246

Media var. dipendente   10.44420   SQM var. dipendente     13.79880
Somma quadr. residui    48500.39   E.S. della regressione  13.87306
R-quadro                0.001099   R-quadro corretto      -0.010792
F(3, 252)               0.084412   P-value(F)              0.968503
Log-verosimiglianza    -1034.499   Criterio di Akaike      2076.999
Criterio di Schwarz     2091.180   Hannan-Quinn            2082.702
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

Table 29: DID estimation, outcome variable EBITDA margin (Different industry)

```
Modello 2: OLS, usando le osservazioni 1-188
Variabile dipendente: EBITDA
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                  coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const             10.2650       1.48864      6.896     8.32e-11 ***
  MA                 3.10881      2.65039      1.173     0.2423
  post               0.500405     2.16757      0.2309    0.8177
  interaction_term   1.10539      5.03947      0.2193    0.8266

Media var. dipendente   11.29427   SQM var. dipendente     13.43256
Somma quadr. residui    33283.86   E.S. della regressione  13.44955
R-quadro                0.013551   R-quadro corretto      -0.002533
F(3, 184)               0.781562   P-value(F)              0.505625
Log-verosimiglianza    -753.3407   Criterio di Akaike      1514.681
Criterio di Schwarz     1527.627   Hannan-Quinn            1519.927
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

Finally, current ratio regression suggests that companies that had concluded cross-border acquisition in the same sector employed fewer resources in comparison to one that preferred to diversify in other sectors. Particularly, although both are not significant, the effect on the first case is negative of -0,17 (B= -0,17; t= -0,44; p>0.1), and on the second reaches the -0,34 (B= -0,34; t= -0,72; p>0.1). It is possible to check the regressions in Tables 30 and 31.

Table 30: DID estimation, outcome variable current ratio (Same industry)

```
Modello 3: OLS, usando le osservazioni 1-256
Variabile dipendente: CR
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                  coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const              1.57895      0.128800     12.26     2.08e-27 ***
  MA                 0.224696     0.213713      1.051    0.2941
  post               0.292694     0.239582      1.222    0.2230
  interaction_term  -0.166314     0.376800     -0.4414   0.6593

Media var. dipendente   1.785014   SQM var. dipendente     1.477993
Somma quadr. residui    552.1866   E.S. della regressione  1.480276
R-quadro                0.008710   R-quadro corretto      -0.003091
F(3, 252)               0.924194   P-value(F)              0.429644
Log-verosimiglianza    -461.6430   Criterio di Akaike      931.2859
Criterio di Schwarz     945.4666   Hannan-Quinn            936.9893
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

Table 31: DID estimation, outcome variable current ratio (Different industry)

```
Modello 4: OLS, usando le osservazioni 1-188
Variabile dipendente: CR
Errori standard robusti rispetto all'eteroschedasticità, variante HC1

                   coefficiente  errore std.  rapporto t  p-value
  ------------------------------------------------------------------
  const               1.57895     0.129171     12.22     1.54e-25 ***
  MA                  0.0805950   0.237488      0.3394   0.7347
  post                0.292694    0.240273      1.218    0.2247
  interaction_term   -0.340160    0.466836     -0.7286   0.4671

Media var. dipendente   1.706262   SQM var. dipendente     1.417183
Somma quadr. residui    372.1275   E.S. della regressione  1.422122
R-quadro                0.009171   R-quadro corretto      -0.006984
F(3, 184)               0.501321   P-value(F)              0.681830
Log-verosimiglianza    -330.9431   Criterio di Akaike      669.8863
Criterio di Schwarz     682.8321   Hannan-Quinn            675.1314
Note: SQM = scarto quadratico medio; E.S. = errore standard
```

Source: Personal elaboration using GRETL

Empirical findings show that cross-border M&As typically have no significant effects on average. However, the negative impact is more pronounced when the transactions occur within the same sector than in other sectors. This trend is observed for ROA and current ratio but not for EBITDA. This difference could be due to the fact that it's easier to achieve better synergies when the transaction happens within the same industry. Additionally, management operating in the same industry can better understand the potential of the target company and its competitive advantages, thus reducing the risk of overpayment.

However, companies that acquire businesses in sectors other than their own tend to develop better margins in subsequent years. This could be attributed to the fact that by targeting companies in different sectors with better margins, the overall EBITDA of the acquiring company improves.

Finally, it's important to note that acquiring businesses in different sectors requires a greater investment of resources. This can be seen from the results of the regression of the current ratio.

3.4.4 Limitations and consideration on performance post-acquisition

Empirical findings show that cross-border M&As typically have no significant effects under all aspects analyzed. Non-significativity of the results can be considered a good result for Italian companies compared to the results found in the international literature that see significantly negative results (Gugler et al., 2003; Moeller & Schlingemann, 2005; Adedeji & Ayoush, 2017; Ghosh, 2001; Bertrand & Betschinger, 2011; Ashfaq et al., 2014; Nicholson et al., 2016).

However, even if not significant, ROA decreases an average of -2,12% compared to companies that do not afford an international acquisition. EBITDA margin decrease of -0,98% and current ratio -0,21.

The negative impact is more pronounced when the acquirer is an SME company than when the acquirer is large. The differences in ROA margins, EBITDA margin, and the current ratio between them could be due to the ability of large companies to attract managers with better skills for post-merger processes. It could also be attributed to the greater resources that large companies have at their disposal, which may be the key to managing integration processes successfully. Moreover, the negative impact is more pronounced when the transactions occur in different sectors than in the same sectors, except for the EBITDA margin. This difference could be because it is easier to achieve better synergies when the transaction happens within the same industry. Finally, it is essential to note that Acquiring businesses in different sectors requires a greater investment of resources, which could be the reason for the decrease in the current ratio.

Our work presents some limitations that future research will be able to overcome and improve the results. The first major limitation is the narrowness of data, which is one of the possible causes of having found non-significant results. Two factors dictate this limit, the first being the impossibility of accessing accounting data more than ten years before the last published budget. In our case, we could not access balance sheet data before 2013. Second, we have a limited number of companies treated for several reasons: the Italian phenomenon of cross-border acquisitions has been relevant in the last 5-6 years, and future studies will have more data to observe. Subsequently, we had to exclude seven companies because some essential financial data for the analysis were absent, and ten others were omitted because they made more than one acquisition in the period covered, from 2016 to 2018. Therefore, it would have been impossible to isolate the post-acquisition effects if a company had concluded a transaction in different years but within the period under treatment.

This limit should no longer exist in the coming years as the number of cross-border transactions increases.

A second limitation of this work is the possible presence of domestic M&A operations during the treated periods. This means that we need to find out whether, from 2013 to 2021, the companies of the treatment group and those in control bought Italian companies. If such a hypothesis were to arise, this would be a factor that would affect the goodness of the analysis. Future research could overcome this problem and analyze whether international operations have better or worse results than acquisitions conducted in national territory. Such analysis could, however, find difficulties in the matching phase as the number of domestic operations may not be large enough to find the proper matching (i.e., companies with similar characteristics) with companies that have made international transactions.

The literature highlights another limitation; according to Bertrand & Betschinger (2012), the PSM does not work well when the treated group is affected by multiple acquisitions. To overcome this trouble, we have excluded companies that have made more than one transaction in the period 2016-2018. However, in doing so, we did not take into account the experience effect, which is a fundamental component. Companies that already made several cross-border acquisitions have learned how to enter a foreign market, and this ability could help to achieve better performance. Empirical evidence underlines how more experience in deal selection, structuring, and integration brings acquirers to have better performance (Bertrand & Betschinger, 2012).

Finally, the empirical approach adopted (DID combined with PSM) involves using accounting data, which excludes non-financial aspects. M&A is a multidimensional transaction, and it is important to remember that companies go abroad not just to produce at lower costs but also to gain access to the knowledge and technology of foreign firms. However, this Objective may undermine the company's efficiency (Stiebale & Trax, 2011). Therefore, an operation that sees worsening performances within three years could guarantee a competitive advantage and the possibility of survival in the long term, and this does not emerge from the accounting data.

3.5 Conclusions

This chapter has allowed us to understand, first of all, the identity of the Italian company that performs cross-border M&As and how the trend has changed over the years. The second part of the chapter then allowed us to understand the critical role that resources have in this type of operation. Finally, the last part allowed us to understand if international acquisitions improve or worsen performance.

From 1985 until 2022, Italian companies engaging in cross-border mergers and acquisitions have experienced a decreasing trend in average size. This trend is confirmed by decreasing net sales, total assets, and even deal amounts (even if the deal values data are incomplete). Despite this, large companies such as Luxottica Group SpA, Eni SpA, Atlantia SpA, Carel Industries SpA, Autogrill SpA, Granarolo SpA, and Amplifon SpA remain top acquirors, with average net revenues of approximately 14 billion and medians of 1.6 billion. Their median EBITDA margin is around 17.5%, significantly higher than that of other companies that completed international operations. It should be noted that these results may have been achieved through a successful M&A strategy. Since 2000, companies engaging in M&A operations abroad have become less indebted, although their cash flow to debt ratio has decreased. This means there is less ability to generate cash from operation activity to repay debt.

Over the past 37 years, the percentage of top nations over the total has fallen from 80% to 63%. This is due to increased transactions and companies acquiring foreign entities and a lower concentration of investment in the same countries. Companies are also exploring potential business opportunities in countries with significant cultural differences, even though such differences can cause challenges during post-merger integration.

The analyses conducted in the second part of Chapter 3 suggest that Italian companies that engaged in cross-border mergers and acquisitions across different industries had more resources than those that remained in the same industry. The management's reluctance to enter markets where they have less expertise might be the reason for this. Entering a different industry is a riskier move, and as per Wan and Yiu (2009), having more resources can encourage management to pursue riskier acquisitions. The analysis indicates that Italian companies reduced their international operations during economic downturns, and those who continued with such operations had better resources. Companies with higher internal resources can better afford the risks associated with international operations, while others may opt for safer alternatives. However, companies should not be fearful or pessimistic during economic downturns, as these can present the best opportunities. Wan and Yiu (2009) and Alessandri et al. (2014) have emphasized that downturns can offer "shopping" opportunities as financially struggling competitors may be willing to sell their businesses at competitive prices. Companies with ample internal resources can act more aggressively and make advantageous deals during these times. Organizational slack can improve business performance in times when external resources are scarce. Therefore, an environmental shock, which may be seen as a catastrophe, could present unique opportunities for businesses (Wan & Yiu, 2009).

Finally, in the third section of Chapter 3, we implemented an empirical strategy consisting of two stages: the PSM and DID approaches. This choice was taken to guarantee unbiased results and follow the recommendations of the literature. The same approach but with modifications in matching techniques is used by several authors (Gosh, 2001; Gugler et al., 2003; Rahman & Limmack, 2004; Stiebale & Trax, 2011; Bertrand & Betschinger, 2011; Guest et al., 2012; Edamura et al., 2014; Nicholson et al., 2016; Campagnolo & Vincenti, 2022).

Empirical findings show that cross-border M&As typically have no significant effects under all aspects analyzed. Non-significativity of the results can be considered a good result for Italian companies compared to the results found in the international literature that see significantly negative results (Gugler et al., 2003; Moeller & Schlingemann, 2005; Adedeji & Ayoush, 2017; Ghosh, 2001; Bertrand & Betschinger, 2011; Ashfaq et al., 2014; Nicholson et al., 2016).

However, ROA decreases an average of -2,12% compared to companies that do not afford an international acquisition. EBITDA margin decrease of -0,98% and current ratio -0,21. Results are respectively in line with the papers of Cioli et al. (2020), Adedeji & Ayoush (2017), and Rashid & Naeem (2016).

The negative impact is more pronounced when the acquirer is an SME company than when the acquirer is large. The differences in ROA margins, EBITDA margin, and the current ratio between them could be due to the ability of large companies to attract managers with better skills for post-merger processes. It could also be attributed to the greater resources that large companies have at their disposal, which may be the key to managing integration processes successfully. Moreover, the negative impact is more pronounced when the transactions occur in different sectors than in the same sectors, except for the EBITDA margin. This difference could be because it is easier to achieve better synergies when the transaction happens within the same industry. Finally, it is essential to note that acquiring businesses in different sectors requires a greater investment of resources, and the consequence could be a decrease in the current ratio.

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