



Department of
Economics and Finance

Chair of
M&A and Investment Banking

M&A Activity in the European Healthcare Market: Two Case Studies

SUPERVISOR

Prof. Marshall Langer

CANDIDATE

Alessio Bergodi

Student Nr.665761

ASSISTANT SUPERVISOR

Prof. Francesco Baldi

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Introduction

The aim of this work is to investigate the relevance that the Mergers and Acquisitions activity assumes in the global industry and more specifically in the European Healthcare sector.

Reasons that make a company undertake an M&A are various: a firm could be willing to expand its businesses, weaken the competition in its industry, buy technology from the market or accelerate its growth. Furthermore, other than those growth-related reasons, M&A can be used as a cost-cutting driver.

Two case studies will be analyzed in order to show in practice how a M&A process works and which are the main factors driving the M&A activities in the European Healthcare market.

The first chapter will firstly provide an outlook of the main trends that characterized the M&A activity starting from the 19th century. The analysis will go into details showing which are the main features of the European market and analyzing the evolution that the latter experienced following the European regulatory framework's harmonization process.

The study will continue breaking down the European market in the countries and sectors that mostly contributes to the volumes it generates. Consequently, a detailed analysis of the Healthcare sector will be provided, the industry will be divided in three main market segments, that in some cases may overlap: Pharmaceutical, Medical Services Providers and Biotech. Eventually, a possible evolution of the global and European M&A activity will be traced.

The second chapter will focus on M&A activities undertaken by a strategic buyer. A case study will be provided and will regard a merger that took place in 2015, when two companies providers of medical diagnostics in the clinical laboratory services market, Synlab and LABCO, have been taken over by a Private Equity fund and then merged in a new company that eventually became a champion in the industry.

First of all, an analysis of the sector will be provided, showing which are the key elements driving the success and the main risk factors that companies may have to face. The two firms subject of the merger will be analyzed in both the corporate profile and the financial performances.

A detailed study of the deal, as well as the new company formed following the merger, will be eventually presented. The chapter will conclude shaping the company's possible future performances.

The third chapter will provide an example of an inversion deal not concluded due to US Government intervention, studying the case of the failed merger between two research-based biotechnology companies, AbbVie and Shire. The second chapter's structure will be traced.

An outlook of the biotech sector both at global and European level will be presented, aimed to show the relevance of the technology and regulation compliance as the key driver of success in the industry. The study will continue with an analysis of companies' corporate profile and financial statements. The last paragraph of the chapter will show which are the reasons driving an inversion deal and will provide a detailed analysis of the measures taken by the US Government in order to prevent and discourage inverters.

Eventually, the effect of such measures on the deal subject of the case study will be studied and a possible development in the regulation framework will be expressed.

1. Outlook of M&A Activity

1.1 Mergers & Acquisitions

The first step to take, before analyzing the M&A industry, is to give an idea of what the financial meaning of the words Mergers & Acquisitions is, literature helps us in finding some definitions. Ossadnik (1996) stated that a Merger “is the transfer of assets of at least one company to another company”. The meaning of Acquisition was suggested by Capron (1999) as “the purchase of a smaller company by a much larger company”. The sum of these two statements results in a definition of M&A as a combination of at least two businesses into one business.

A second step one can take is the investigation of which are the main reasons that make a company undertake a M&A activity. One first obvious reason is to improve (or maintain) the company’s performance: “M&A’s are undertaken to create synergies, whereby the newly created entity after the merger has a larger value than the two companies had separately before the merger”¹. A second reason is related to a company’s need of stability and diversification: it is commonly accepted that a more diversified cross-industry business will be more robust in case of a change in the market, increasing the chances of surviving and continuing to profit. Other reasons could be the interest of a company in weakening the competition in a given sector, accelerating the company’s growth and acquiring skills and technology from the market. Several controversial reasons emerged by researchers works. Roll (1986) stated the so-called Hubris Hypothesis of Corporate Takeovers: “Managers are too optimistic about synergies and their own capabilities which is why they undertake M&A’s when they shouldn’t”. Brown and Sarma (2007) investigated the expected profit of a M&A activity considering managers’, rather than companies’, point of view, given that a company’s manager can be attracted by personal benefit: “Managers have incentives to cause their firms to grow beyond the optimal size. Growth increases the managers’ power by increasing the resources under their control. It is also associated with increases in managers’ compensation, because changes in compensation are positively related to the growth in sales”.²

To complete the picture, a categorization of which are the players in the industry and the types of M&A process is needed. The historical players in the industry can be divided in Buy-side and Sell-side: the former includes companies that want to get taken over, other than all specialists in the field,

¹ BROWN R., SARMA N., *CEO Overconfidence, CEO Dominance and Corporate Acquisitions*, Department of Finance at University of Melbourne, 2006.

² JENSEN M.C., *Agency Costs of Free Cash Flow, Corporate Finance and Takeovers*, *The American Economic Review*, Vol. 76, No.2, 1986.

such as investment banks and financial advisors; the latter consists of all the players that look at companies as an investment like Hedge Funds, Private Equity, Asset Managers and Venture Capital. According to the nature of the M&A activity, four different kinds can be distinguished: Horizontal, Vertical, Concentric and Conglomerate.

A horizontal M&A happen when a company merges or takes over another company belonging to the same industry sector and offering the same product or service. We talk about vertical M&A when there is an integration that involves two companies that are in the same value chain of producing the same good or service, but at different stages. Concentric M&A occur when the activity includes companies that share the final customer but don't offer the same product or service. Usually done pursuing diversification, Conglomerate M&A involve firms operating in different sector, different stages of production and whose final customers may not be the same.

1.2 Global M&A Activity

M&A has been a significant activity since the end of the 19th century, when in the United States started a horizontal merging process that ended in the birth of the big industries of steel, telephone, oil, mining, railroad and other manufacturing. The activity consolidated during the 20th century (Figure 1.1), registering a substantial increase in volume after the World War II.

Martynova and Renneboog (2005) found that M&A activity is characterized by cycles: big market crisis such as the 1929 and the Internet Bubble in 2000 resulted either as a time high peak for M&A activity and as the end of the big wave of M&A deals.

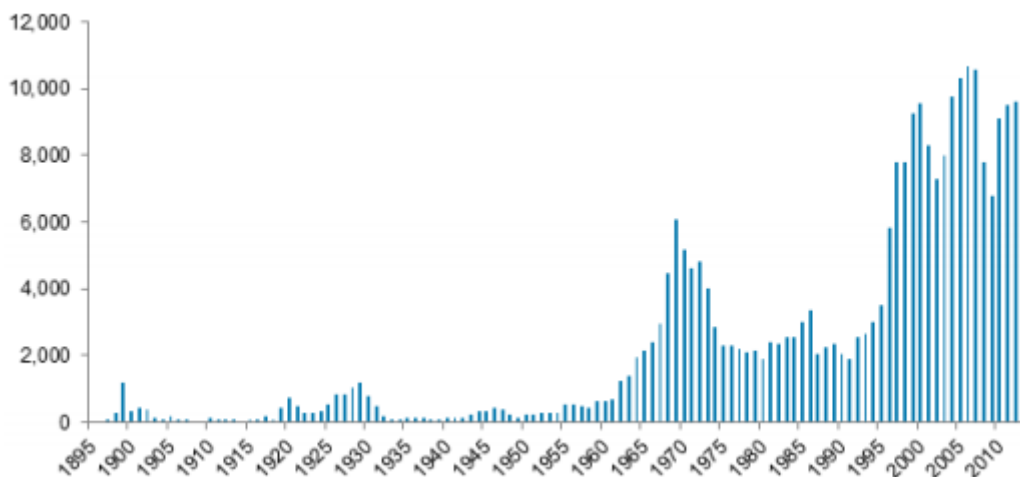


Figure 1.1³ – Number of M&A operations in the U.S. 1895 to 2015

Drivers that boosted M&A activities depended on the cycle. Vertical integration was the main reason behind the strong activity in the first year of 1900 before the big crash in 1929 ended the wave. The increase experienced starting from 1950 was mainly led by established companies looking for diversification of their business and geographic area in which they operated. However, conglomerates stocks fell around 1970 making big companies never achieve the benefit they invested for.

An investment flow performed by investment banks (mainly in US) and several horizontal mergers in Europe, in order to prepare for the coming cross-border market, characterized the M&A industry in the eighties. The period anticipating the Internet Bubble was the era of mega-deals: the grew competition made firms become larger to compete with others while high stock prices encouraged companies and pressured them to make deals to maintain high trading multiples.

The beginning of the 21st century marked the relevance of the M&A as the industry exhibited considerable volumes both in terms of number of deals and in transactions value. Expressing the M&A activity as a percentage of global GDP gives an idea of the huge amount of capital involved in the industry. (Figure 1.2)

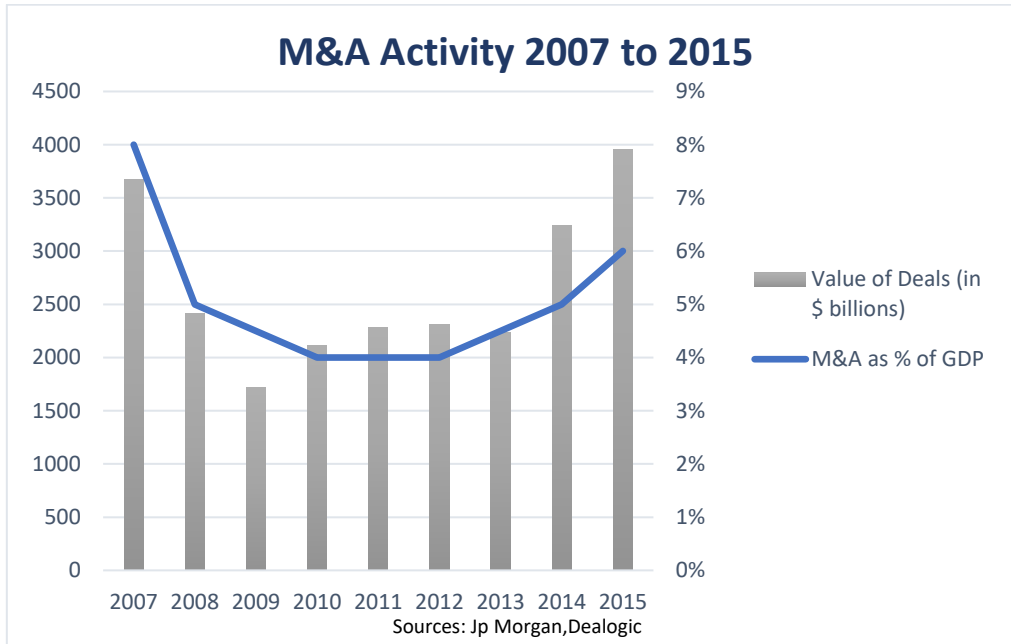


Figure 1.2 - M&A Activity 2007 to 2015 as % of Global GDP

³ CRETIN F., DIEUDONNE S., BOUACHA S., M&A Activity: Where are we in the Cycle?, OFI Asset Management, 2015.

High time peaks were registered in 2007 and 2015 with a deals' value respectively of 3.7 and 3.9 trillion of dollars,⁴ accounting for a relevant percentage (8%-6%) of the global GDP. Among the principal factors of such a rise in activities are globalization, favorable financial markets' conditions, rise in commodities price, a huge growth of Private Equity funds, a loose monetary policy that makes the financing easier with low interests and the "encouragement of some countries (for example France, Italy and Russia) to create national or global champions"⁵.

1.3 European M&A Activity

1.3.1 European M&A Activity: 2000-2007

The European M&A activity, especially in the period immediately after the Internet Bubble, has been particularly remarkable and reached, for the first time, the weight that United States M&A has in the global M&A industry. European companies have historically underperformed US M&A activities, facing issues that US companies might not have to deal with. Less developed financial markets (European companies have mainly relied on bank debt to finance deals), the absence of a cross-border market, cultural (also in language) differences among countries and significant discrepancy in legal and regulatory environment contributed to slow down the European M&A industry, pushing companies to invest in their domestic market.⁶

In this period, M&A in Europe has substantially increased its volume: \$7,124.10 billion⁷ of transactions value, particularly outstanding if compared to previous decades, while the average value of M&A deals went down to \$1,200 million (the average was \$2,135 in 1999)⁸. An explanation of this aspect emerges analyzing the relation between M&A deals and overall equity market conditions: a full-cash transaction is more likely to occur when the deal's size is small (less than \$1 billion), while for bigger deals a hybrid transaction (with shares involved) is more often used; as a result, the value of the transaction is likely to increase when the stock market valuations are at high values.

⁴ Sources: *Mergermarket, JP Morgan, Dealogic, Factset Mergers.*

⁵ LIPTON M., *Mergers Waves in the 19th, 20th and 21st Centuries, The Davies Lecture, Osgoode Hall Law School, York University, 2006.*

⁶ CAMPA J.M., MOSCHIERI C., *The European M&A Industry: a Market in the Process of Construction, Acad Manage Perspect, Vol. 23, No. 4, 2009.*

⁷ Source: *Factset Mergers*

⁸ MARTYNOVA M., RENNEBOOG L., *A century of corporate takeovers: What have we learned and where do we stand?, Journal of Banking & Finance, 2008.*

The main drivers of this powerful growth can be found in the introduction of Euro currency, which created a more liquid European Capital Market, a process of globalization, technological innovation, deregulation and privatization as well as the financial markets' boom. As a consequence, the old domestic market started to become a cross-border market within the EU, making it easier for European companies to change their setting from a domestic-oriented target to a wider cross-border market player.

It is important to mention that, even if the European integration process experienced several relevant steps as described above, slight differences between European member states still existed at all levels: regulation, culture, political and economic activities. An indicator can be found in the fact that the 81%⁹ of the deal closed in the period 2001-2007 was between domestic companies and “despite the emphasis in industry consolidation in the European Union, about half of the transactions taking place occurred within the same industry and, in the other half of these transactions, the target and the acquirer were in different industries”¹⁰.

The trend of Europeans regulators was to make the EU M&A market as integrated and homogeneous as possible, so that the Takeover Directive 2004/25/EC was issued in 2004 in order coordinate takeover regulation at European level, but the result was far from satisfactory, as the EU Single Market Commissioner said: “We have gone a long way in reverse gear. If the council continues to take decisions like this one, the EU will never reach its target of becoming the most competitive economy in the world by 2010”¹¹.

The main goal of the Takeover Directive was to harmonize the regulation of the national takeover laws across the EU but the pitfall was that the Directive made some rulings optional for the member states, leaving room for persistent controversial regulation among EU states.

⁹ Source: *Mergermarket*

¹⁰ CAMPA J.M., MOSCHIERI C., *The European M&A Industry: Trend, Patterns and Shortcomings*, IESE Business School, 2008.

¹¹ Mr. Fritz Bolkestein, *Financial Times*, 28 November 2003.

1.3.2 European M&A Activity: 2007-2016

The M&A activity suffered the effects of the financial crisis showing a downward trend after 2007, when the sub-prime lending hit in 2008 the outcome resulted in a global instability and the hardening of credit. However, these effects were mitigated by the need of broken investors to unload their portfolios and convert their investments in cash. The industry started to recovery in 2010, exhibiting a positive trend both at European and global level (Figure 1.3) and in 2015 were reached the values achieved before crisis (\$914,3 billion, with a growth of 39,6% with respect to the previous year). (Figure 1.4)

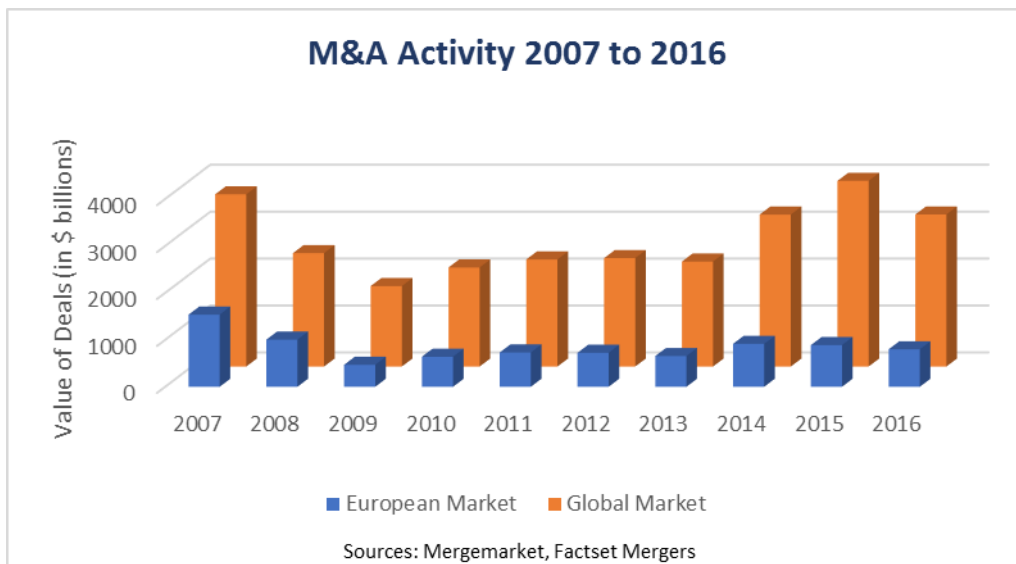


Figure 1.3 - European and Global M&A activity 2007 to 2016

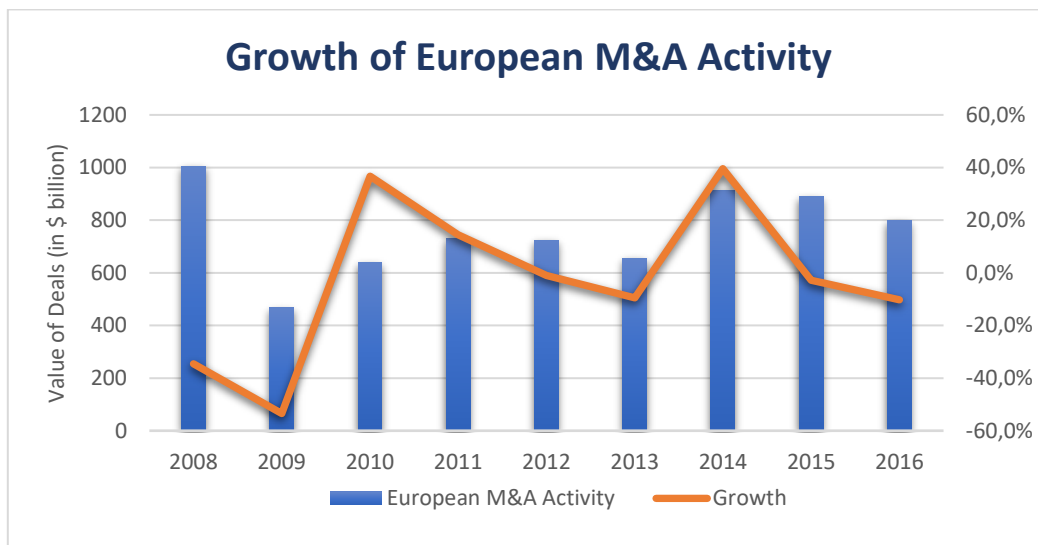


Figure 1.4 – Growth of European M&A Activity

Last two years have been characterized by a weakened Euro currency, that drove foreign companies to invest in Europe and encouraged Member States to invest in the domestic market while low interest rates and economic growth in the U.S. made cheap debt available to corporations to fund activities. In 2016 transaction confidence and the resulting level of cross-border M&A have been tempered by the wave of political uncertainty across the continent, resulting in a decrease of transaction volume, that dropped by 10,3% (\$797,4 billion). Deals' activity has clearly been affected by Brexit¹²: uncertainty about the June's vote made continental companies averse to set up a deal with a UK company, while U.S. and Asian buyers were attracted by UK businesses, considering them a bargain given the drop in the value of Pound¹³. November's vote for Presidential Elections in the United States put uncertainty in the Global Financial Markets framework and, as a result, European M&A got influenced (U.S. is the best partner for EU companies' businesses and the relation between Euro and Dollar is really strong). Another valuable driver of 2016's activity was the Italian Referendum, that took place in December; Italy registered its all-time record in 2016¹⁴ (\$54,7 billion with 505 deals closed) and according to Mergermarket Intelligence, investors might postpone deals until the political situation clears, "as economic reforms that were expected to cast a positive influence over the markets could come to a standstill now that Renzi's government is no longer in power"¹⁵.

1.3.3 European M&A Activity: Geographic Area Breakdown

Breaking down the European M&A industry in the geographic areas that contribute to set up capital flows a first relevant conclusion comes up: United Kingdom accounts for half of the value and about a quarter of the volume generated in Europe (Figure 1.5-1.6) and is the third-largest M&A market after United States and China in the Global M&A. Second and third place are taken up by German speaking countries and France, therefore the first three main contributors account for about the 70% of value of transactions, making the European M&A market strongly dependent on their performance.

¹² *United Kingdom vote to leave the EU*

¹³ *Source: "European M&A Activity". Grant Thornton (2016).*

¹⁴ *Italian government approved a bill under which Italy's mid-sized banks would be transformed into joint stock companies, with the ultimate aim of increasing access to credit for small business owners. As a result, several large financial services companies have been either purchased by or have merged with foreign counterparts, which has boosted M&A activity in the sector.*

¹⁵ *"Global and Regional M&A Q1-Q4 2016". Mergermarket (2017).*

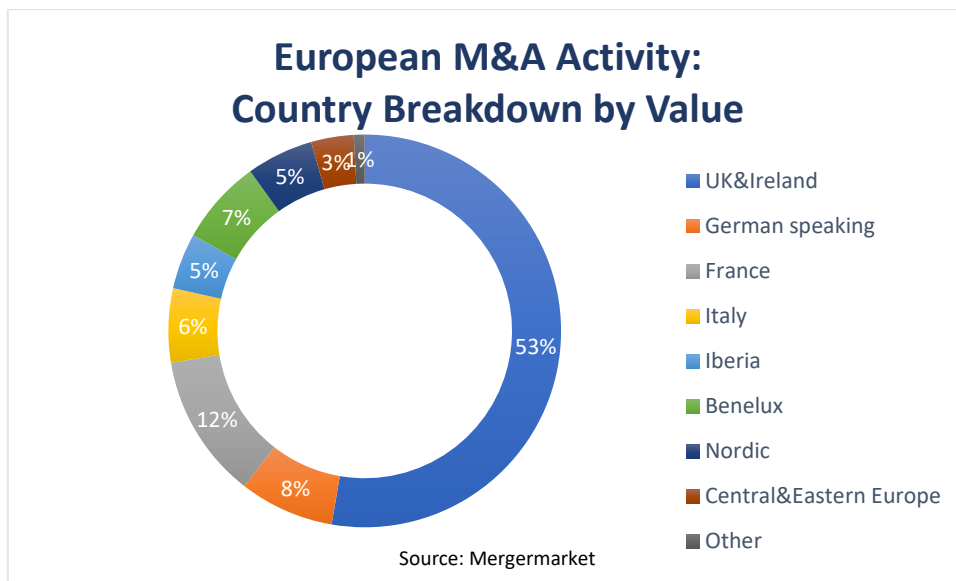


Figure 1.5 – European M&A Activity: Country Breakdown by Value¹⁶

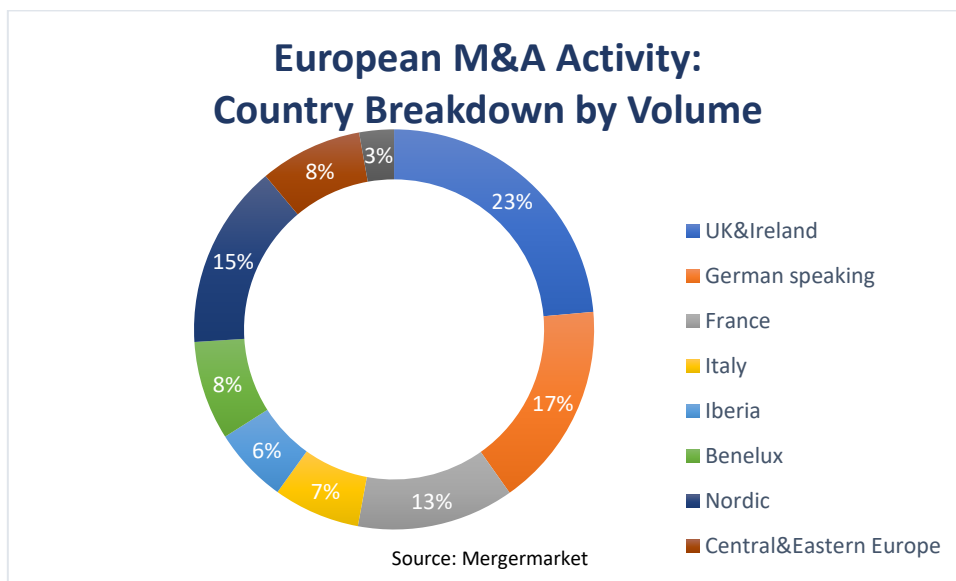


Figure 1.6 – European M&A Activity: Country Breakdown by Volume

Key driver of such a configuration in contributing to the European M&A industry’s volume can be found investigating the relevance of M&A activity in the top countries.

¹⁶ Based on announced deals in 2015.

Volumes generated by United Kingdom's company are impressive if related to country's GDP (14,5%): a strong economic condition, high competition in most sectors and strong reliance on capital markets, other than bank debt, for funding make UK the European country that is most similar to the US setting. (Figure 1.7)

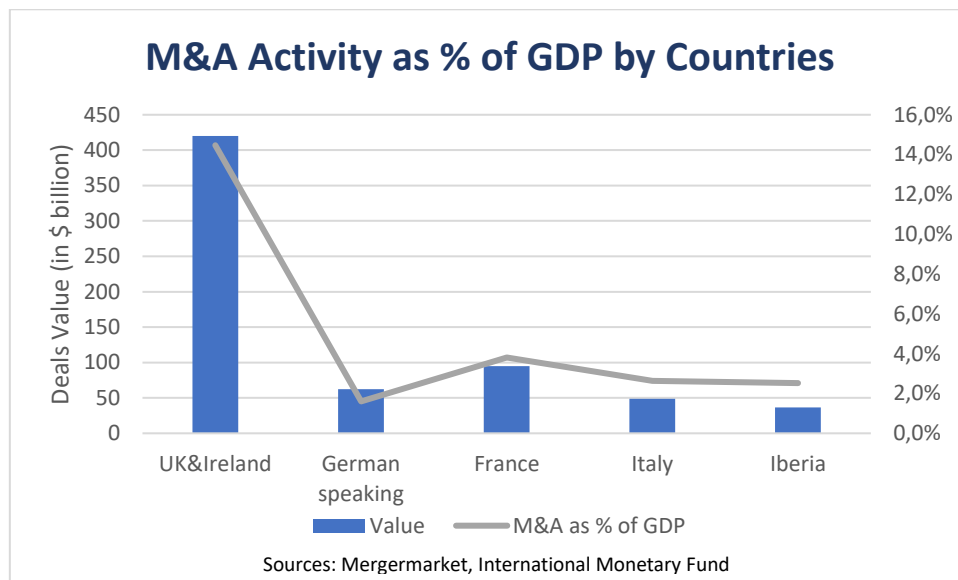


Figure 1.7 – M&A Activity as % of GDP by Countries

Other countries' companies seem to rely less on M&A to pursue their objectives. However, Germany remains one of the busiest M&A market in Europe and is characterized by both large transaction in volume and size. Transaction activity has increased by 28% in 2016 compared to 2015 and was mainly directed to the EU market, including acquisitions in UK, Netherlands and France.¹⁷

M&A activity in France decreased in 2016, but French companies have been on the offensive: acquisitions made by corporations abroad increased by 26% while French companies' takeovers as targets dropped by 45% compared with 2015¹⁸.

The ranking as contributors to M&A flows is reflected in the deals occurred in 2016: UK and France companies take place in 3 of the 5 most valuable deals. The acquisition of two UK-based companies by foreign companies after the Brexit referendum confirms what stated above: the strong devaluation the Pound experienced after the referendum's result opened up a favorable situation for investors. Japan and US based companies, in this case, entered respectively a \$30.2 and \$22.4 billion deal (Figure 1.8) that would have been substantially more expensive some months before.

¹⁷ Source: "European M&A Activity". Grant Thornton.

¹⁸ Source: Global Legal Insight.

Top deals

Deal value (US\$bn)	Ann. date	Bidder company	Bidder country	Target company	Target country	Target sector	Seller company
45.9	27-Oct	Qualcomm Incorporated	US	NXP Semiconductors NV	Netherlands		
45.9	03-Feb	China National Chemical Corporation	China	Syngenta AG	Switzerland		
30.2	18-Jul	Softbank Group Corp.	Japan	ARM Holdings (98.55% Stake)	UK		
22.4	15-Dec	Twenty-First Century Fox Inc	US	Sky Plc (60.9% Stake)	UK		
20.4	21-Jul	Sacam Mutualisation	France	Credit Agricole - Regional Banks (25% Stake)	France		Credit Agricole SA

Sector key

 Telecommunications
  Industrials & Chemicals
  Media
  Financial Services

Figure 1.8¹⁹ – European M&A Top Deals in 2016

1.3.4 European M&A Activity: Sector Breakdown

There are companies all around the world that want to achieve, or maintain, their competitive advantage in the industrial sector they operate. As stated in the first paragraph, M&A is one of the tools they have, and an insightful analysis can be made looking at industry sectors that compose the M&A activity structure.

According to Mergermarket, 7 main sectors are identified: Industrial and Chemicals; Technology; Financial Services; Energy, Mining and Utilities; Healthcare, Business Services; Consumer. (Figure 1.9).

¹⁹ Source: Mergermarket. Ranked by Deal Value.

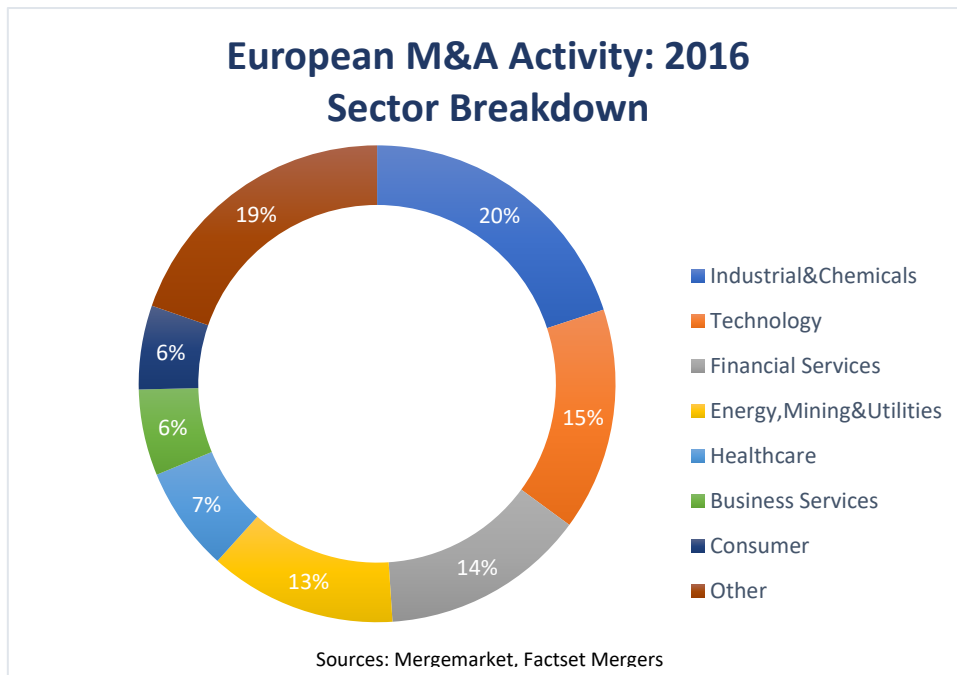


Figure 1.9 – European M&A Activity 2016: Sector Breakdown

The leading sectors are Industrial&Chemicals and Technology, reflecting the need of constant competitive reinvention in a sector where technology development and progress is the main driver for profit and competitiveness, coupled with a rapidly changing customers demand: M&A is then useful to acquire new technologies and expertise on the market and to capitalize opportunities of expansion.

Technology development was one of the main drivers of the activity in the Financial Services too. Since financial institutions now have to deal with FinTech businesses investments and M&A opportunities have increased in last years, making the sector moving toward technology assets.

Over last year, the sectors that have seen the largest decline in M&A deal volume are Consumer (dropped by 78%) and Energy, Mining&Utilities (-29%): the drop in oil prices and an increased volatility is leading to structural changes in the industry of Energy.

1.3.5 European M&A Activity: Healthcare Sector

Healthcare M&A industry accounted for about the 4% of European M&A activity in 2015 and was close to double its weight in 2016. The golden year was the 2014, when the industry achieved the record of \$117,0 billion in transactions value (Figure 1.10): tax inversion deals boosted total values as individual price tags increased, with two deals above \$10 billion (against none in 2013), the acquisition of Covidien and the sale of Glaxo Smith Kline's oncology business. Pharma played a central role in cross-border deal flow, amounting to about a quarter of total inbound (\$74,1 billion) and 37,4% of outbound (\$136,7 billion)²⁰.

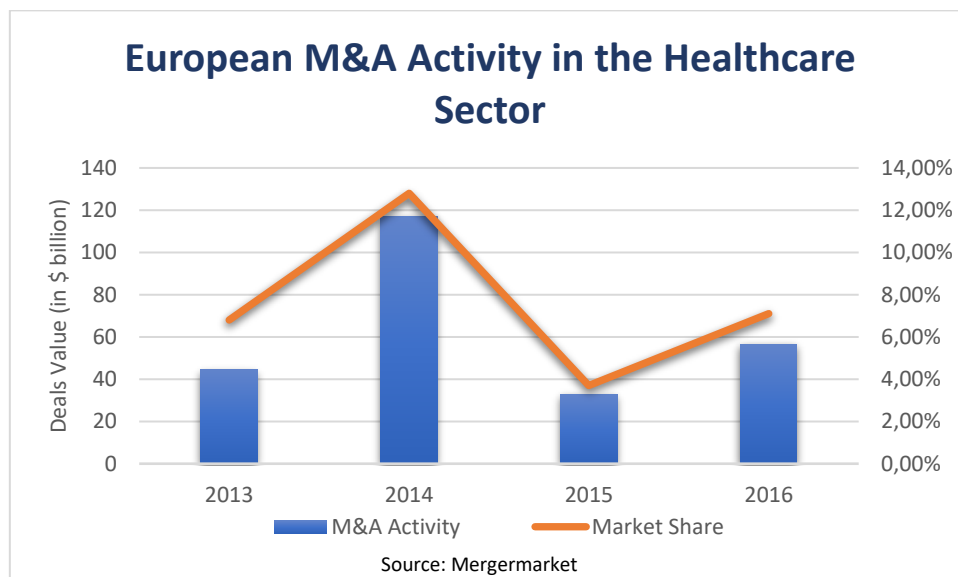


Figure 1.10 – European M&A Activity in Healthcare Sector

The industry is a staple for Private Equity investors' portfolio and is expected to grow in importance when the macroeconomic framework is unstable, since the sector offers good assets, favorable deals and allow creative ways to complete exits. Long term macro fundamentals are favorable to activity in the sector since the aging populations and chronic disease fuel demand in developed markets, as cost pressures continue across the world and as people in developing economies seek new or expanded access to healthcare.²¹

Private Equity activity was fueled by a favorable framework: being healthcare a necessary activity that makes up a large portion of GDP in many countries and underlying demand remains strong

²⁰ Source: Mergermarket

²¹ JAIN N., KAPUR V., KLINGAN F.R., MURPHY K., VAN BIESEN T., WEISBROD J., *Global Healthcare Private Equity and Corporate M&A Report*, Healthcare Private Equity Association & Bain, 2016.

through economic cycles, medical industry can be considered a safe haven; slow economic growth made investors look for different and challenging sector to invest in; wide availability of cheap financing and good equity markets' conditions, as well as tax inversions benefits, resulted in a rise of investments in healthcare companies.

Healthcare activity is pulled by Pharma industry, a sector that experienced a process of consistent acquisitions that started in the Nineties. Smaller companies (revenues less the \$1 billion) have regularly been acquired by larger firms. Mega-deals marked the dominance in the sector of a few Big Pharma companies²². (Figure 1.11)

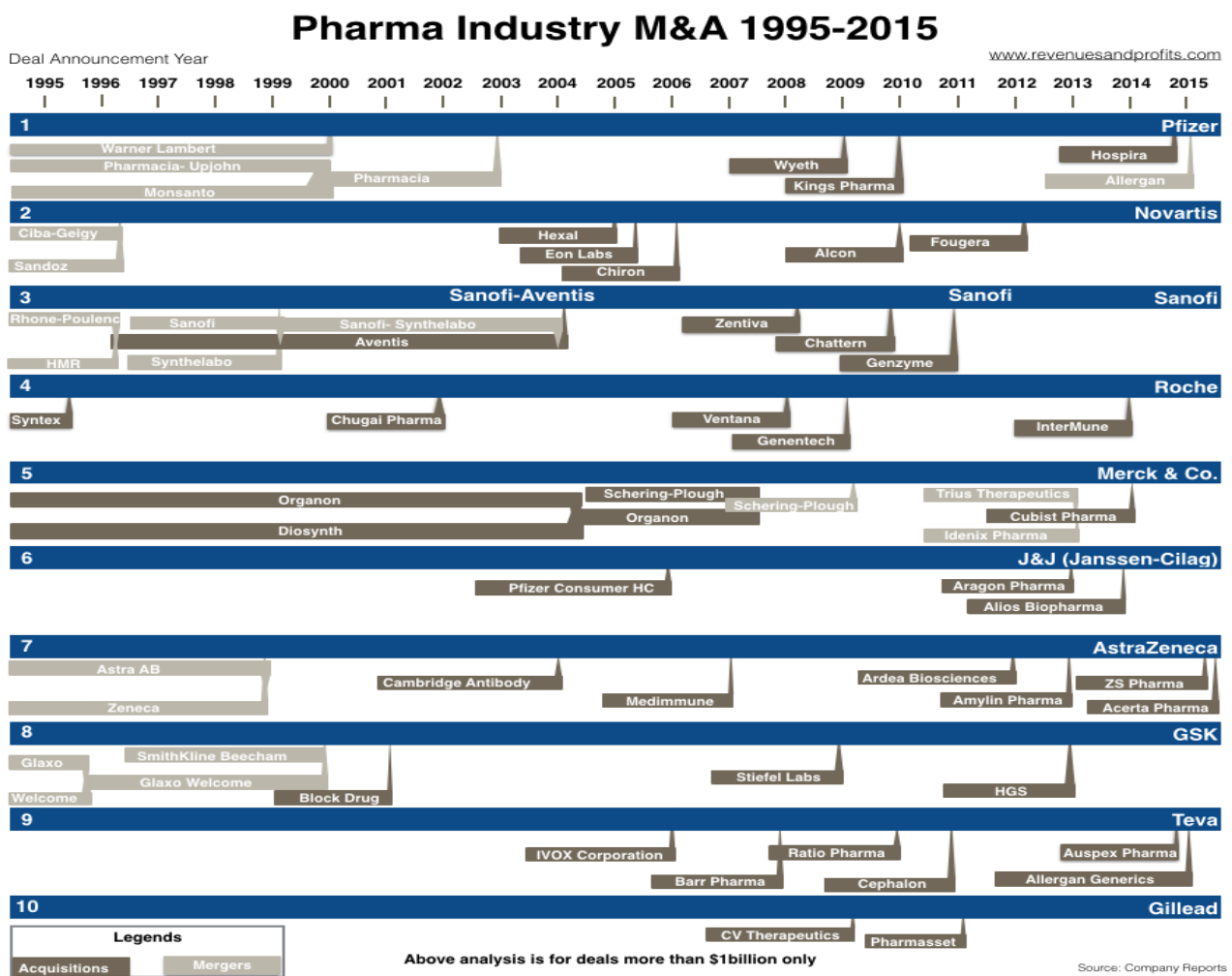


Figure 1.11 – Pharma Industry M&A 1995-2015

The power of big companies started to become less effective in 2007, resulting in a big Pharma companies' market share (35% in 2014). The major driver of this reversal was the so-called "Patent Cliff": a large part of pharma companies profit come from investing in intellectual property, i.e.

²² 50% of market share held by top 10 companies in 2007. Source: Revenus&Profit.com.

brand-name drugs that the companies can patent and sell exclusively for a fixed period of time.²³ When those patents expire, it's possible for other Pharma companies to produce the same drugs, usually a cheaper version called "generic". This phenomenon plugged more competition in the sector and made big companies change their plans and taking different paths in order to restore the dominant position they used to have in the market.

Valuations in the Pharma industry in 2015 appeared to be holding up at an average of 17x EBITDA, while the revenues multiple was about 3x. Multiples are impressive if compared with average buyouts' multiple in other industries (average EBITDA multiple among sectors is 9,7).²⁴ High multiples paid reflect a sector driven by strategic buyers over financial investors: strategic buyers are interested in a company's fit into their own long-term business plans and take over companies in order to enhance their existing operations and eliminate competition; so that they are able to pay more than a fund only looking at absolute return.

Mid-sized companies with good R&D and innovative technologies involved in production are the best targets for larger and stable Pharma companies. Acquirers will profit from skills and technologies acquired from the market, apply their financial and productive structure to the taken over company and use its well-known brand and sales force to better sell the acquired products through their consolidated channels²⁵.

The medical sector includes medical devices and medical services' providers. A medical device can be defined as "any instrument, apparatus, appliance, software, material or other article, whether used alone or in combination, including the software intended by its manufacturer to be used specifically for diagnostic and/or therapeutic purposes"²⁶. It is clear that development in technology drive the flow in the sector: medical devices companies profit from innovation and high-technology products. Investment in medical devices research and developments and a close cooperation between companies are the main drivers that characterize the sector. Competition is high: small and medium-sized companies make up the 95% of the medical technology industry.

Medical services' providers are companies that offer full range of diagnostics, curative, preventive and rehabilitative services for clinical practice and entire healthcare sector. Laboratory medicine plays a key role in diagnostics and the validation of treatments, as well as on the path to personalized medicine. Regulation and compliance is determinant in this sector since companies deal in the most direct way with people lives. Last years' trend was for EU regulators to contain costs and shift care from public structures to most efficient private companies.

²³ Source: "Could Big Pharma's Patent Collapse Sink your Portfolio?".

²⁴ Source: "M&A and capital markets update". JD Ford&Company.

²⁵ GOEDHART M., KOELLER T., WESSELS D., *The five types of successful acquisitions*, McKinsey & Company, 2015.

²⁶ Source: "MedTech Europe".

Big players in the activity buy-side are Private Equity funds and several macroeconomic trends that made this sectors attractive to PE can be identified. The ability to diagnose, monitor and treat chronic diseases continue to grow, resulting in better and more effective treatments. A significant fragmentation that opened up opportunities for consolidation strategies aimed to build up a champion in the industry. The PE fund Cinven caught this opportunity buying France based company LABCO firstly, and the German firm Synlab immediately after, with the objective of building up a merged company that would lead the European diagnostics providers market; this case will be analyzed in details later on. Providers and related services was the only sector in the industry not to fall in M&A activity after the record of 2014: provider companies generated a huge flow of activities in 2015 going toward a consolidation among big players (Figure 1.12).

Target	Acquirer(s)	Sector	Country	Deal size
WuXi PharmaTech	Consortium including Hillhouse Capital Group, Temasek Life Sciences and others*	Biopharma and related services	China	\$3.3B
MedAssets	Pamplona Capital Management	Provider and related services	US	\$2.8B
Air Medical Group	KKR	Provider and related services	US	\$2.0B
Alvogen	CVC Capital Partners; Temasek Holdings; Vatera Healthcare Partners	Biopharma and related services	Europe/US	~\$2.0B
synlab	Cinven	Provider and related services	Germany	~\$1.9B
Labco	Cinven	Provider and related services	France	\$1.3B
Concentra	Select Medical Holdings; Welsh, Carson, Anderson & Stowe; Cressey & Company	Provider and related services	US	\$1.1B
Sterigenics International	Warburg Pincus	Medtech and related services	US	>\$1.0B
LGC	KKR	Biopharma and related services**	UK	~\$0.9B
Cooper (Coopération Pharmaceutique Française)	Charterhouse Capital Partners	Biopharma and related services	France	\$0.8B
			Total***	~\$17.0B

*Other investors include Ally Bridge Group, Boyu Capital, G&C Partnership, Legend Capital, Ping An Insurance, SPDB International, Sequoia Capital, Yinfu Capital and Yunfeng Capital

**LGC also has operations in the provider and related services sector

*** The total may not equal the sum of the deal sizes due to rounding

Sources: Dealogic, AVCJ, Bain analysis

Figure 1.12²⁷ – Top Healthcare Buyouts in 2015

Biotech industry activity consist in the development of “biological processes, organisms, or systems to manufacture products intended to improve the quality of human life. The earliest biotechnologists were farmers who developed improved species of plants and animals by cross pollenization or cross breeding. In recent years, biotechnology has expanded in sophistication, scope and applicability”.²⁸ Regarding M&A activity, 2015 was a very exciting year for Biotech sector: companies demonstrate

²⁷ JAIN N., KAPUR V., KLINGAN F.R., MURPHY K., VAN BIESEN T., WEISBROD J., *Global Healthcare Private Equity and Corporate M&A Report, Healthcare Private Equity Association & Bain, 2016.*

²⁸ Source: TechTarget.org. *Definition of Biotech Industry.*

a strong ability to develop new drugs, coupled with Pharma firms, and faced a positive trend from financial and capital raising market. Stock markets have rewarded biotech companies that report positive clinical data, such companies have been able to raise significant capital in follow on offerings. The growth of the M&A activity in the sector was mitigated by the downturn on stock market and the negative sentiment about drug pricing.²⁹

1.4 Global M&A Activity: What's Next?

“A simple logic underpins the business of mergers and acquisitions: confidence in the corporate and political landscape makers for a higher likelihood for dealmaking”.³⁰

After the mega-deals that pushed the M&A industry to the highest level ever achieved in 2015, the deal making activity slowly dropped in 2016 pulled by the worldwide economic and political uncertainty.

A question arises: What will be the future of M&A activity?

Some macro economical events that happened in 2016 will obviously impact the near future: UK referendum, US presidential elections and Chinese economy more than others. Last two quarters in 2016 registered an increase in activity compared with first two quarters of the year. (Figure 1.13)

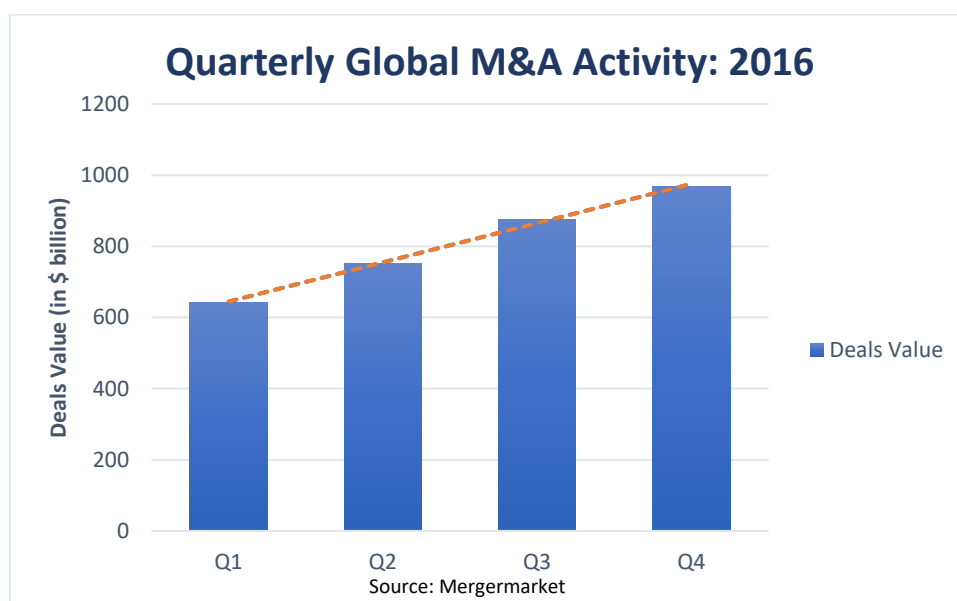


Figure 1.13 – Quarterly Global M&A Activity in 2016

²⁹ Source: “Biotech Financial and M&A trends”. Forbes.com.

³⁰ FONTANELLA-KHAN J., MASSOUDI A., M&A boom set to continue in 2017, Financial Times, December 2016.

A survey made by Mergermarket Intelligence gives positive perception of M&A industry in 2017 as eighty percent of respondents think the M&A in 2017 will follow the path of last two quarters, resulting in an increase in M&A activity compared to this year, while just 8% believe it will decrease somewhat.

Forbes specialist identified four trends that will lead the industry: liquidity, slowly rising debt costs, technology and Trump pro-growth policies.³¹

According to Factset Mergers, S&P 500 businesses held more than \$1500 billion in cash in the third quarter of 2016. Summing this result up to the fact that credit recovered after 2008 crisis, so that banks have money to lend, it would be easier for investors to spend cash pursuing profit in M&A industry. Money lent by banks and money spent to acquire targets companies will definitely depend on the level of interest rates on debt: a spike in activity due to cash availability will be mitigated by an increase in cost of financing.

Trump promises' effectiveness could determine financial markets activity: if his GDP-boosting policies will take place, M&A activity will benefit.³²

From a sector perspective, the driver of global deals could be the tech sector. If Snapchat's IPO is successful, it would be the largest US-listed technology company offering since Alibaba Group in 2014. Healthcare, especially Biotech and Pharma, could ride the innovation flow and is likely to boost M&A flows in coming years.

All the results and hypothesis made till this point will eventually depend, as stated above, on the impact of the last political events and are made on the assumption, among others, that China continues to manage its economic slowdown and Eurozone will keep on recovery.

³¹ Source: "The 4 Biggest Trends in Mergers and Acquisition for 2017. Forbes.com.

³² Gerry O'Meara, Head of M&A at SunTrust.

2 Case study 1: The merger of LABCO and Synlab

2.1 Sector Outlook

The two companies subject of the case study, Synlab and LABCO, are providers of medical diagnostics in the clinical laboratory services market.

Companies offer a wide range of clinical laboratory tests, whether routine or specialty. The nature of these services varies among countries. Routine tests consist of regular healthcare controls that allow health professionals to establish or confirm a diagnosis, to monitor treatment or to search for an undiagnosed condition. Specialty involves a high level of complexity: tests are conducted by highly skilled biologists and specialists and sophisticated technologies, equipment and material are generally used.

Technology, regulation compliance and a wider offer of tests performed are, among others, the main factors driving the success in that sector.

Technology involved in clinical laboratory testing, especially through medical and molecular biology, will have a key role in developing medicine. Molecular biology tests (or genetic analysis) are moving forward the medicine helping to identify the risk of certain diseases, allowing for the early detection of potential problems before the definitive diagnosis of the clinical symptoms will occur. Every effective technological development of sophisticated diagnostic techniques could produce significant gains in therapeutic and economic effectiveness.³³

Companies should enhance their testing capacity to remain competitive in the clinical testing market. Development team monitors the scientific literature and trade press, cooperates with test manufacturers and suppliers in order to identify new tests that become commercially available and, when appropriate, add to the company's range of services offered.³⁴

The clinical laboratory testing industry, as well as the whole medical sector, has to deal with an extensive regulation and controls performed by the various regulatory authorities all around the Europe.³⁵ Controls and regulation have an important influence on the way activities are carried out, setting operating requirements, professional qualifications of laboratory personnel, corporate governance constraints and the pricing and reimbursement levels of clinical tests.

Compliance with current or future regulations may increase the companies' costs both in terms of operational expenditures and legal organization, possibly resulting in a limitation of their revenues.

³³ Source: "How Technology is Transforming the Diagnostics and Lab World". *BusinessInsider.uk.com*.

³⁴ OOSTERHUIS W.P., ZERAH S., *Laboratory medicine in the European Union*, US National Library of Medicine, 2015.

³⁵ HERVEY J., *The impacts of European Union Law on the Healthcare Sector*, Eurohealth, Vol.16, 2015.

Failure to comply with such laws and regulations may implicate administrative, disciplinary, civil or criminal sanctions for companies and for people working within the firm.

Companies operating in this sector are subject to risks belonging either to general financial markets condition and to specific risks of the industry. Generic risks as interest rate, financing, credit or counterparty risk, volatility and overall economy conditions affect companies' activity and revenues. A downturn in activities during negative cycles of general economic happened, especially after 2007 crisis. However, the influence is not so strong as it is in other sectors: the market for clinical testing services is not generally regarded as very sensitive to macroeconomic cycles and factors.

Risks that characterize the medical sector are Healthcare industry's reforms made by regulators, delays in third-party payments,³⁶ increased quality and price competition resulting from changes in the competition framework due to the tendency of consolidating small companies, legal risks related to disputes and litigation.³⁷ M&A has been a significant tool for companies that wanted to face those risks becoming larger and more stable: a geographical coverage expansion, the aim of building a more solid business and the opportunity to buy knowledge and specialists from the market have been the main reasons that led medical services providers' companies invest their resources in consistent acquisition of smaller firms.³⁸

A study performed by Cha, Copp and Pellumbi (2014) shows how M&A activity marked the evolution of the sector, that has become, over last decades, a slow-growing mature industry, driven by a slowdown in volumes and a significant increase in pricing pressure; completely different from the fast-growing market it used to be. Consolidation has been the main trend in response to the growing market pressure, as a result the concentration has increased in most segment of the market. Small and high-frequent M&A activity seems to outperform larger deal, delivering better shareholders returns, while large deals seem, on average, not to create value. The study explains how larger deals show an average return in performance of about zero and a significant volatility, while operating margins and growth expectations for the combined company are low (multiples decrease 13% following a large deal).³⁹

M&A activity in the European Medical Providers sector experienced a huge growth in 2016, both in terms of absolute volume and in relative weight to the overall market, growing by 37% and accounting for about the 3% of the industry. The growth is outstanding if compared to the 10% average rise in M&A activity experienced by the other sectors.

³⁶ Most commonly taken tests are usually paid by the National Healthcare system.

³⁷ Source: "Critical risks facing the Healthcare Industry". *Riskandinsurance.com*.

³⁸ Source: "LABCO Financial Report". (2015).

³⁹ CHA M., COPP J., PELLUMBI G., *Value Creation in Medical Device M&A*, McKinsey & Company, 2014.

2.2 LABCO

2.2.1 LABCO: Corporate Profile

LABCO was founded on the 5th of June 2003 in Paris and was the holding company (directly or through other controlled companies) of all its French and foreign laboratory-operating subsidiaries. The original objective of LABCO's founder, Eric Souètre and Stéphan Chassaing, was to “consolidate through integration (initially in France, then in Europe) clinical testing laboratories to enhance the cost-effectiveness of healthcare systems and to help delivering higher quality healthcare”,⁴⁰ the company is still pursuing this goal as the main objective nowadays.

The group started operating in France and then expanded across the Europe making various acquisitions that made it one of the main player in the diagnostics services market. (Figure 2.1)

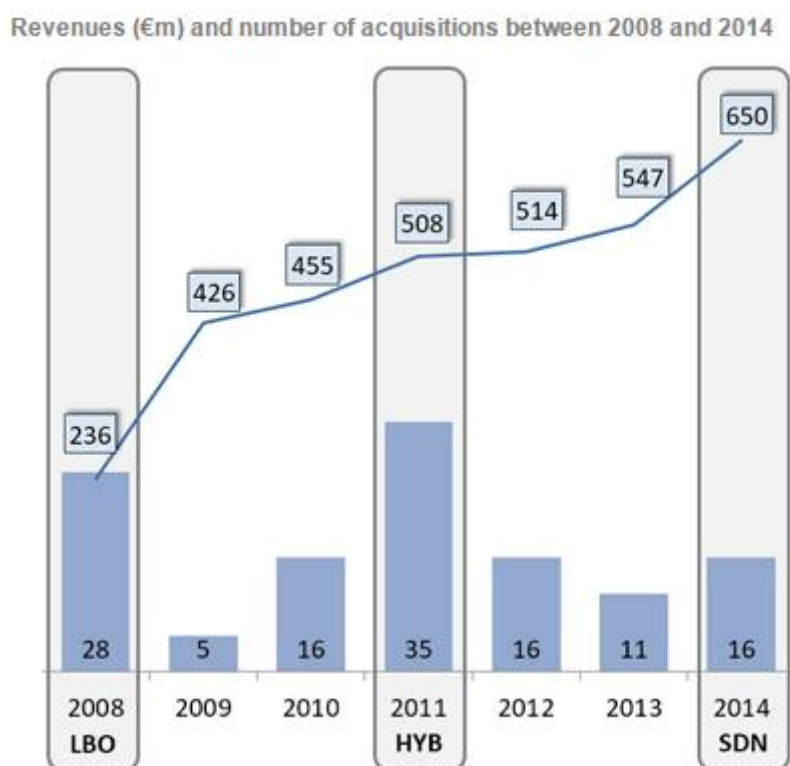


Figure 2.1 – Revenues and Number of Acquisitions 2008 to 2014⁴¹

⁴⁰ “LABCO Financial Report”. (2014).

⁴¹ Source: “LABCO, the group history”.

Among valuable events there is the entrance in the Spanish market through the acquisitions of General Lab S.A. in 2007 and Sampletest S.A. in 2008, and the expansion towards the Portuguese market by acquiring the Lisbon-based firm Soprelab (2008). These acquisitions, coupled with relevant reimbursement agreements with private insurance companies for patients covered by private insurance, made LABCO become the leader in Spanish and Portuguese markets.

The group continued its expansion strategy entering the Italian market through the acquisition of the Baluardo laboratory and a shareholding in C.A.M (2007), while the buyout of Roman Pais laboratory (2008) marked the entering in Belgium.

Not all acquisitions are profitable in the long-term, this was the case of the German market, that LABCO tried to penetrate with the acquisition of six laboratories in 2008.

Differently than for France and Spain, German market was characterized by the presence of highly-consolidated international firms such as Sonic Healthcare, Limbach and Synlab, and completed by mid-sized regional entities. The high competition and a fractious relationship with the former owners of some acquired laboratories affected the performance of LABCO, making the firm take up a weak market position in Germany.⁴²

In 2010 LABCO went in market in the United Kingdom by an Integrated Pathology Partnership (Ipp), a joint venture with Sodexo (a leading global provider of facilities management services to the healthcare market).⁴³

Following the 2011 acquisition of CIC, a high specialty testing laboratory based in Barcelona, LABCO, other than enhance its competitive advantage in the Spanish market, started to provide clinical test to customer in Latin America and North Africa. Swiss market was penetrated in 2013 by a joint venture with Test SA. At the end of 2014 LABCO was one of the market leader in France, Spain, Portugal, Belgium and Italy, accounting 64 laboratories in France, 9 Laboratories and Integrated Diagnostics Centers in Italy, 56 Laboratories in Spain, 25 in Portugal, 4 in Belgium, 6 in United Kingdom and 1 in Switzerland. (Figure 2.2)

The group has been able to perform such a powerful M&A activity also thanks to its solid capital structure and ability in financing.

Acquisition have been financed by issuing 8.5% Senior secured bonds in 2011, maturing in 2018, for a principal amount of €500 million⁴⁴; part of the proceeds has been used to restructure the existing mezzanine debt.

⁴² Source: LABCO Financial Statements. (2014).

⁴³ Source: "3i-backed Labco and Sodexo announce innovative new UK Pathology Joint Venture". 3i.com.

⁴⁴ Source: LABCO Financial Statements. (2014).

Additional Senior bonds for a principal amount of €200 million have been issued in 2013, raising the total debt to €700 million. The company have always been able to pay interest on its debt through its solid and sustainable generation of cash flow from operating activities.

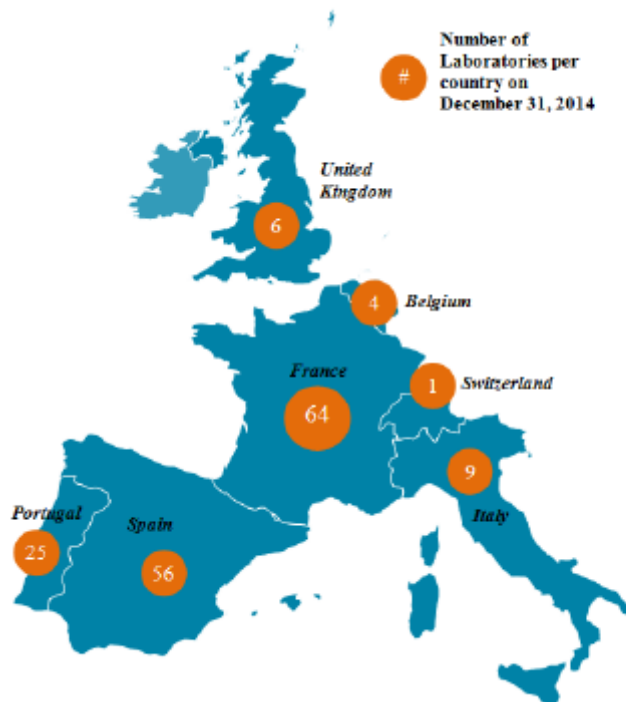


Figure 2.2⁴⁵ – Number of laboratories per country on 31 December 2014.

LABCO is present in more than 50 hospitals centers and performs over 50 million tests every year for about 20 million patients. The catalog of tests offered by the firm is one of the wider available on the market, including more than 5000 tests.

Tests offered include DNA genetic testing and analysis, a sector in which the company is a market leader. The result of a genetic test can confirm or rule out a suspected genetic condition or help determining the chance of developing a genetic disorder.

Offering genetic tests differentiate LABCO from its main competitors, as usually there is a differentiation between companies only providing a wide offer of diagnostic tests, as Synlab and Unilab do, and companies specialized in high-specialty and research-based genetic tests.

LABCO is able to provide genetic tests and analysis, as well as classical diagnostics, through General Lab, its Barcelona-based high-specialty laboratory.

⁴⁵ Source: "LABCO Financial report: LABCO in Numbers".

2.2.2 LABCO: Financial Statements' Analysis

The group generated revenues in 2014 of €615,6 million experiencing a growth of 12,48% compared to 2013. EBITDA grew by 5% to €135,14 million while EBITDA margin dropped 6,65%. (Figure 2.3)

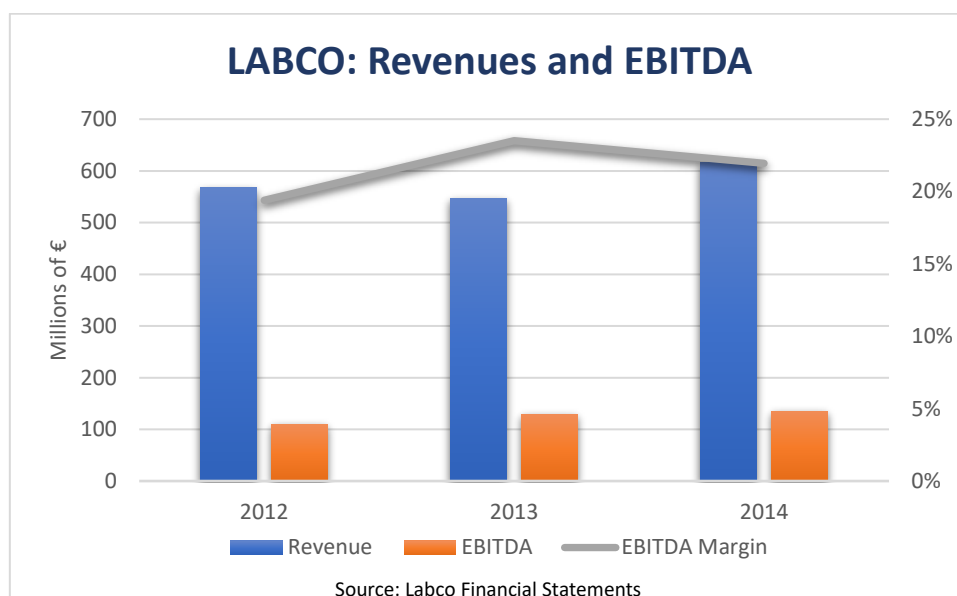


Figure 2.3 – LABCO: Revenues and EBITDA

Key factors behind the growth of revenue can be found in the impact of acquisition (the main one was the acquisition of the Italian SDN group completed on the 30th of July 2014) and efficiency gains. The increase was partially mitigated by a growth in competition in Spain and Portugal and by an increased pricing pressure in most countries in which the group operates, especially in Italy and France.

Rise in revenues is great if compared to the group's main competitors in the industry: LABCO was able to achieve a growth rate much higher than its direct competitors in the European market (Synlab, 9% and Unilab, 4%) and match the rate experienced by Sonic Healthcare, a larger Australian-based company operating worldwide. However, the outstanding performance in revenues has not been supported by a likewise growth in EBITDA and consequently the EBITDA margin went down.

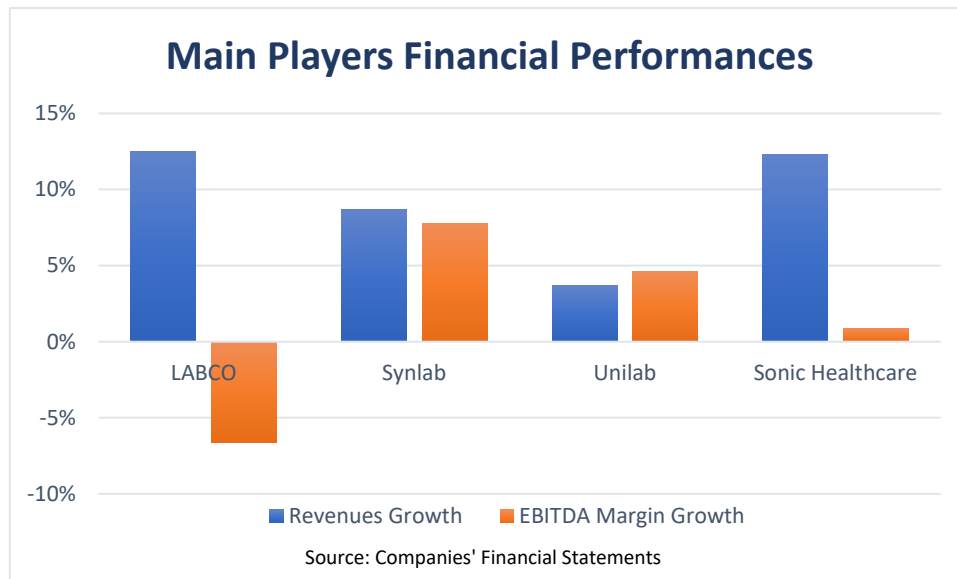


Figure 2.4 – Main Players Financial Performances

The drop of EBITDA margin could be mainly attributable to the price reductions in France and non-recurring expenses recognized in other operating expenses related to the outsourcing contracts for certain NHS trust in United Kingdom.

Breaking down revenues by countries it is possible to see how Italy was the main contributor to the marginal growth of the group experiencing a rise in revenues of 45,4% (€17,4 million to €55,6 million). Naples-based SDN's acquisition then results the key driver of the revenues growth, as well as the EBITDA's increase, both at country and group level.

The group cost of sales mainly consists of chemical reagents (raw materials costs) and outsourced tests, transport and logistics costs. Chemical reagents used to perform clinical tests are purchased from suppliers in the health diagnostic industry, this will be a driver of cost efficiency in case of consolidation. A growth in the number test performed due to the acquisition of a new laboratory will boost revenues and give more contractual power when dealing with suppliers: the rebates granted by suppliers of reagents and consumable and specialty testing laboratories are accounted for a reduction in the cost of purchasing raw materials, supplies and outsourced tests.

The positive trend experienced in 2014 continued in the first two quarters of 2015⁴⁶: before getting taken over by Cinven, the group kept consolidating its position through other acquisitions of smaller laboratories. (Figure 2.5)

⁴⁶ Source: "Labco Q2 Financial Statement". (2015).

Acquisition date	Country	Entities
17.02.2015	France	Laboratoire Defasque
12.02.2015	Belgium	CPG Laboratoire
09.02.2015	Belgium	CPG Laboratorium
03.04.2015	Italia	TMA Technologie
03.04.2015	Italia	TMA Medica
22.05.2015	France	Unibionor SAS
22.05.2015	France	Unibio Laboratoire
22.05.2015	France	SCM Unibionor
27.05.2015	France	Laboratoire Benoit
29.05.2015	France	Technipath (ex Morel)
29.05.2015	France	SELARL A.C Path
29.05.2015	France	SELARL Patholimo
29.05.2015	France	SCM Technipath

Figure 2.5 – LABCO M&A activity in 2015

Most recent analysis of the group will be made in the paragraph regarding LABCO acquisition made by the Private Equity fund Cinven on August 2015.

2.3 Synlab

2.3.1 Synlab: Corporate Profile

Synlab started its activity in 1998, when Dr. Bartl Wimmer (former Synlab CEO and actual CEO of the new SYNLAB group) established Synlab GmbH as an “association of freelance laboratory physicians”⁴⁷ in Augsburg. The company generated revenues of about €30 million.

The German market has always been characterized by spiraling numbers of tests, regulatory changes and cost pressure. Last decades marked the outsourcing of Hospital laboratories and the creation of international business organizations by strong investment in medical laboratories performed by financial investors. Privatization has increased efficiency in the medical healthcare market making German market achieve a volume of about €7.1 billion in 2013.

Consolidation has been the main trend in last years as the number of private small-sized laboratories decline making way for bigger companies: the five largest laboratory groups operating in Germany held the 22% of market share in 2013.⁴⁸

⁴⁷ “SYNLAB: Our History”.

⁴⁸ Source: “Synlab Financial Statement”. (2013).

Synlab followed the market trend acquiring several small-sized laboratories in Germany and started to gain market share in the sector. However, the company's growth was not as strong as competitors', since Synlab focused its investments on the domestic market, rather than penetrating in other countries.

The focus on Germany accelerated the process of becoming one of the market leaders in its own country but slowed down the company's growth at international level.

The turning point came in 2009, when Synlab was taken over by the Private Equity fund BC partners, that acquired the Austrian Future LAB in the same year, with the objective of expanding the group's businesses through the Europe. Acquisitions of Centro Diagnostico San Nicolò and Italian Fleming Labs made a company become one of the top European medical services providers' firm generating €427 million revenues. The take-over of the Prague-based laboratory Chambon marked the penetration in the Czech medical market. Swiss market was entered by the group in 2011 through the acquisition of Bioanalitico, one of the largest private laboratories in the Italian-speaking Canton of Tessin.

In 2013 Synlab entered the Baltic and Scandinavian market acquiring the Quattromed Group, operating in Estonia, Lithuania and Finland. Acquisitions of about 50 small laboratories have been completed between 2010 and 2015.⁴⁹

The significant M&A activity made the group become "one of the largest privately owned providers of medical diagnostics laboratory services in Central and Eastern Europe. Based in Germany, the Group presently has nearly eight thousand employees and operates in Germany, Italy, Switzerland, Austria, Belgium, the Czech Republic, Hungary, the Slovak Republic as well as in North Europe comprising Estonia, Finland, Lithuania, furthermore Slovenia, Romania, Macedonia, Croatia, Poland, the Republic of Belarus, the United Kingdom, the United Arab Emirates, and Turkey, as well as in Norway and Cyprus since the latest acquisitions in 2014 and early 2015".⁵⁰ (Figure 2.6)

⁴⁹ Source: "Synlab Press Release". 27th January 2010.

⁵⁰ "Synlab 2014 Financial Statement".



Figure 2.6⁵¹ – Synlab Group market coverage in Europe in 2014

The group provides clinical diagnostics tests, medical check-ups and screening, anatomic pathology tests, in addition to facilities, technologies, logistics and materials required to operate collaborative and hospital laboratories. Synlab expanded its clinical tests' offer to veterinary sector and is active in the areas of hygiene, pharmaceutical studies and conventional environmental analysis. The group's clinical tests offer's account about 6000 different tests.

The customer base consists of health agencies, clinics, hospital, doctors, private enterprises and private individuals.

2.3.2 Synlab: Financial Statements' Analysis

The group generated revenues in 2014 of €729,4 million experiencing a growth of 8,67% compared to 2013. Key drivers of the growth have been the optimization of the company's structure after the consolidation process, the acquisition of the Northern Europe group Quattromed and the excellent results performed by the Swiss and Italian segments. Despite the general economic and an increasing competitive pressure, the group experienced a rise in volumes, also thanks to a high-volume hospital outsourcing contract and agreements with some health insurance companies. However, it must be

⁵¹ Source: "Synlab Network". (2014).

cleared that, following a year of significant acquisitions activity, the comparison with the previous year is possible to a limited extent only.

The cost of sales mainly consists of materials costs, which were lower due to a higher proportion of analysis services provided. Personnel costs ratio⁵², following a process of resources' optimization started in last years, has been reduced by about 6%.

EBITDA grew 17,23% to €231,9 million, showing part of the results of costs minimization discussed above. Growth in EBITDA was consistent with the increase in revenues, as showed by the EBITDA Margin that went up by 7,78%. (Figure 2.7)

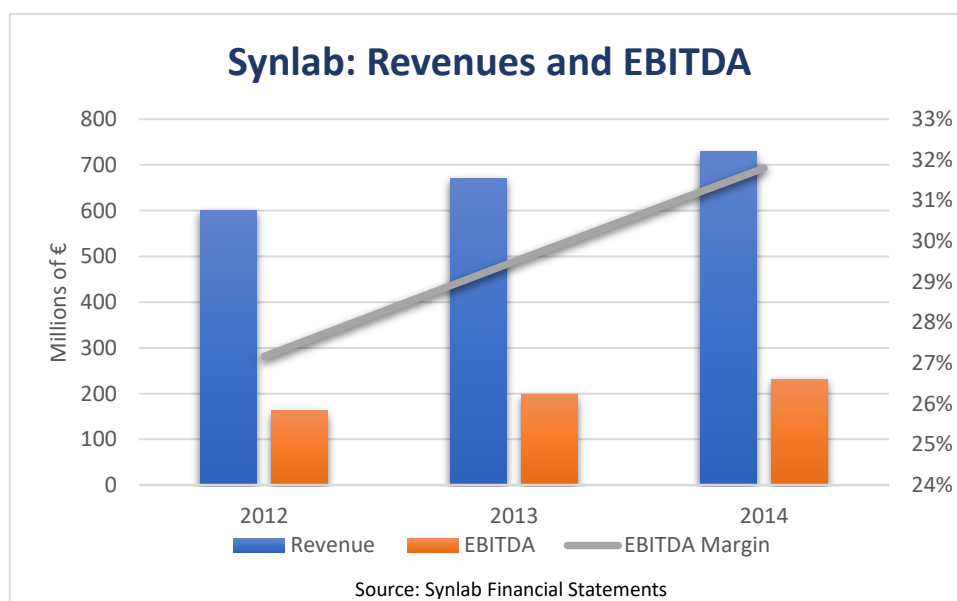


Figure 2.7 – Synlab: Revenues and EBITDA

In last years, as clearly showed by the figure, the company experienced a great and sustainable growth in revenues, EBITDA and EBITDA margin, reflecting the ability of managing new companies and laboratories acquired, other than improve the firm's structure (also reducing costs) and taking advantage of synergies.

Breaking down the company's in the countries that contributed to such improvements in volumes it is easy to found that the key country is Germany, followed (in contribution to revenues) by Switzerland and Italy.

Acquisitions conducted in last years and an increasing demand for environmental analysis have been the key drivers of the rise in revenues in the German market. Sales grew by 6,4% to €406,1 million

⁵² Personnel cost ratio= (Personnel cost/Revenues).

in 2014, accounting for more than a half of total revenues. Cost-cutting measures made EBITDA rise substantially as well as sales.

A strong organic growth boosted revenues in Switzerland to €88,1 million. Among others, key events have been several contracts signed with new hospitals and the entering in the Swiss pharmaceutical analysis market. Revenues went up in Italy to €67,1 million, growing 8,1% compared to the previous year. The increase in sales is not given to acquisitions since in 2014 only a few acquisitions of small and mid-size laboratories have been performed.

EBITDA dropped by 12,2% mainly due to a rise in expenses and the introduction for laboratories of a fixed budget ceiling.⁵³ (Figure 2.8)

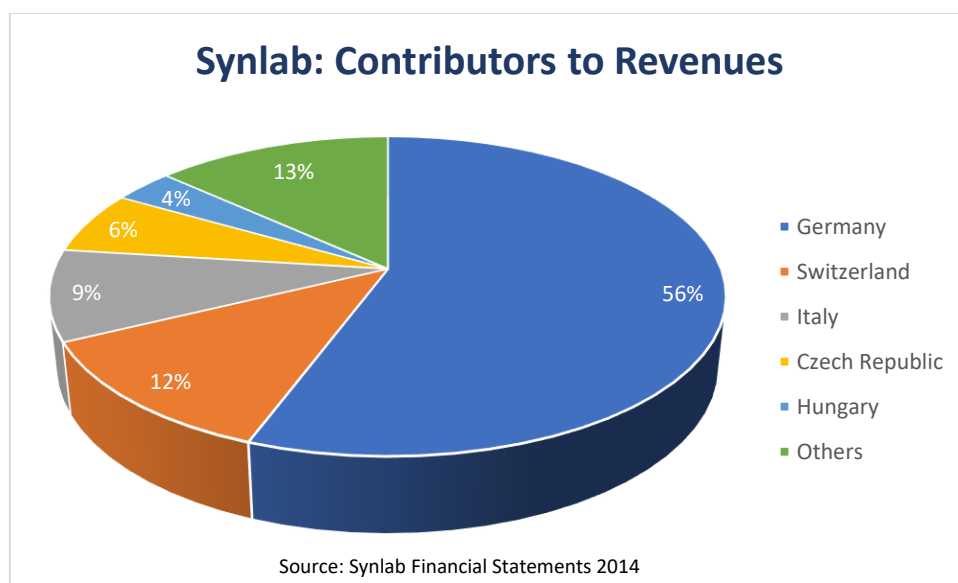


Figure 2.8 – Synlab: Contributors to Revenues

Synlab continued to expand its businesses through a M&A activity in the first two quarters of 2015 entering the medical market in Cyprus and consolidating its position in Norway: “These laboratory takeovers in Norway and Cyprus⁵⁴ bring us another step closer to our goal of providing our entire portfolio of diagnostic services anywhere in Europe and at any time. Both laboratories we have acquired and their customers will receive tangible benefits by joining a leading Europe-wide network of service provider specialized in the field of diagnostics” said Synlab CEO Dr. Bartl Wimmer.

⁵³ Source: “Synlab Financial Statements and Reports”. (2014).

⁵⁴ Synlab acquired the Oslo-based Lab1 and Cypriot MediLab.

2.4 The merger of LABCO and Synlab made by Cinven: SYNLAB

2.4.1 Acquisitions of LABCO and Synlab

Medical services' provider is an attracting sector for Private Equity funds as investment opportunities exist and the industry is expected to grow due to macro and micro economic factors.

Demographic trends, the increasing outsourcing of clinical diagnostics from hospitals to private companies and the cost benefits of early diagnosis are, among others, the key elements that will drive the industry toward an increase in relevance and volumes generated in coming years.

The highly-fragmented market, especially at European level, opens up opportunities of consolidation and institution of a big champion in the industry.

Well diversified, growing efficient companies with strong historic financial performance, solid and robust cash flow generation and a wide countries coverage are then the ideal candidate to get taken over by investors.

Therefore, Cinven, one of the leading European Private Equity fund, decided to invest in LABCO in August 2015 for an enterprise value of approximately €1.2 billion (deal value was about 8 times target's EBITDA) with the plan of buying up other competitors in the fragmented continental market: "Cinven intend to grow LABCO through further acquisitions, given the fragmented nature of the diagnostics laboratory sector, and international expansion across Europe and into emerging markets. We look forward to working with the team at LABCO to achieve this".⁵⁵

JP Morgan led a €800 million bond offering for the acquisition performed by Cinven alongside Barclays, Deutsche Bank, HSBC, Morgan Stanley, Natixis and UBS.

The acquisition came just weeks after the group shelved its plans for a €320 million IPO on the Euronext Paris; management appointed volatility of the market as the main reason not to press ahead with listing.⁵⁶

Cinven is a leading European Private Equity firm founded in 1977 that operates in European market and emerging economies, it invests in six key sectors (Business services, Financial services, Healthcare, Industrials, Consumer and TMT) and acquires Europe-based companies that require an equity investment of at least €100 million. The fund has experience in the diagnostics sector, having made a 3.4x return on the 2011 exit of Phadia, and 2.4x money on the sale of Sebia on December 2014.

⁵⁵ Alex Leslie, *Senior Principal at Cinven*.

⁵⁶ COTTERILL J., *Cinven agrees to buy diagnostic provider Labco in a €1.2 billion deal*, *Financial Times*, August 2015.

The fund implemented its plan to buy up other companies in the diagnostics industry and expanded its portfolio through the acquisition of Synlab, performed in October 2015 for about €1.9 billion⁵⁷⁵⁸. Cinven was able to enter the deal from the position of a highly synergistic strategic buyer after LABCO acquisition: deal's value resulted in about 9x EBITDA valuation. The acquisition has been financed with around €1 billion of debt, in the form of high yield bonds: the banking sources were Barclays, Deutsche Bank, Goldman Sachs and JP Morgan.

Stuart McAlpine, Partner at Cinven, commented: "Cinven's deal origination relies strongly on our matrix of deep sector and regional expertise. Our investments first in LABCO and now Synlab perfectly illustrate how our Healthcare and regional German and French teams have worked closely together to execute our expansion strategy within the European laboratory diagnostics market. We have been extremely impressed by both these businesses and are looking forward to working with both management teams to achieve significant growth in the future."

The acquisition of Synlab, coupled with LABCO's takeover performed just before, resulted in the creation of a new entity: SYNLAB.

2.4.2 The merger of the two companies taken over: SYNLAB Corporate Profile

SYNLAB was born in 2015 following the transformative merger of LABCO and Synlab to create the European champion in the diagnostics industry. The company is the Europe's leader in medical diagnostics service provider and, combining networks and extensive range of innovative diagnostic tests of both originating companies, offers its services in more than 30 countries on 4 continents, performing approximately 450 million tests per annum. (Figure 2.9)

⁵⁷ Source: "Cinven Investment Report"

⁵⁸ BC Partners, former owner of Synlab, made a 2.7x return on its investment.

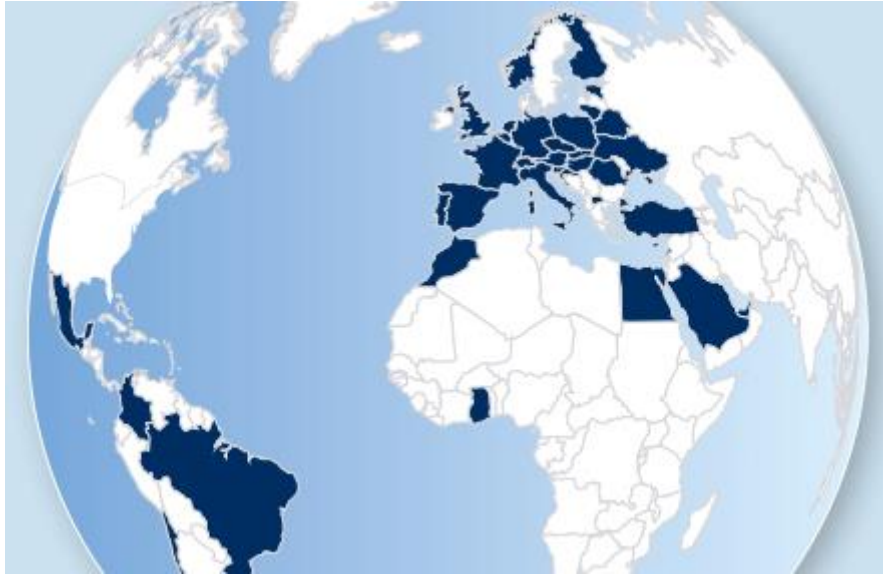


Figure 2.9 – SYNLAB’s Coverage of Worldwide Markets

The group took advantage of benefits of scale available to operators in highly fragmented markets, having the opportunity to cut costs and achieve more efficient services, other than become the natural partner for innovation to bring new tests to market and to provide improved patient outcomes, including areas such as anatomic pathology, molecular biology, genetic testing and nuclear medicine.⁵⁹

The combined business benefited from diversification geographically, by payor and by business model and was able to generate €1,5 million revenues in 2015.

Cinven specialists, along with management, worked on accelerating organic growth and win market share, notably through medical innovation and improved customer service. The fund has reinvigorated the company’s M&A activity to take advantage of opportunities offered by the fragmented providers’ market: SYNLAB’s notable acquisitions in 2016 are the Swiss Lab Top for €30.6 million; the French Selarl Biolac for a purchase price of € 17 million and the Synergy Health UK for €25,6 million.⁶⁰

In order to finance acquisitions SYNLAB issued Senior Secured Fixed Rate Notes due 2022 and Senior Secured Floating Rate Notes due 2022 in the total aggregate principal amount of €940,000,000.

Cinven’s takeovers resulted in a 3 billion bet on the growth of the European medical labs market. The fund’s forecasts are confirmed by the multiples paid, that are high if compared with the historical

⁵⁹ Source: “Cinven Portfolio Analysis”.

⁶⁰ Source: “Synlab Bondco PLC launches an offering of €940,000,000 Senior Secured Notes due 2022”. SYNLAB press.

average multiples in Healthcare acquisitions: the firms acquired have been paid about 9 times their EBITDA and about €250 per employee.

High multiples reflect both the action of Cinven as a strategic buyer and the confidence of the fund's manager about a rosy future for the market.

Great growth potential is confirmed by the market's fundamentals analyzed above: demographics, technological innovation and a market that is still fragmented could result in a fertile ground for SYNLAB leadership and further expansion. However, the role taken up by the public sector must be taken into account: the group operates in a market in which privates have no control over price and are then exposed to the risk of seeing cuts in tariffs that would result in a slow down of the market's growth.

Balancing drivers of growth and risks that companies operating in the medical labs market have to deal with, considering the strong positioning achieved by SYNLAB after the merger and the significant opportunities available on the market, Cinven's bet is likely to get paid off.

The success of the deal was confirmed by the investment performed by Novo A/S, the holding company for the Novo group, that invested € 215 million into SYNLAB. As a long-term investor, Novo will provide significant financial banking for the group in the continued expansion of its operations and the launch of new diagnostics tests.

Commenting on the investment in SYNLAB, Eivind Kolding, CEO of Novo A/S said: "It's a part of our investment strategy to back well-established and profitable life-science companies with a leading position in their field and good growth potential. The investment in Synlab marks an exciting expansion of the industries in which Novo now invests, which now also includes interests in full-service companies within life science. Novo is a long-term investor and we are very excited about the prospects for our investment in Synlab given the growth dynamics of the European clinical diagnostics sector and the high quality of Synlab operations."⁶¹

⁶¹ Eivind Kolding in "Novo A/S expands its large investment portfolio through investment in Synlab and enters the European central laboratory services industry". February 2016.

3 Case study 2: The failed merger between AbbVie and Shire

3.1 Sector outlook

AbbVie and Shire are two listed firms operating in the biotechnology pharmaceutical industry.

Pharmaceutical biotechnology includes all “technologies needed to produce biopharmaceuticals. Biotechnology makes use of findings from various research areas, such as molecular biology, biochemistry, cell biology, genetics, bioinformatics, microbiology, bioprocess engineering, and separation technologies. Progress in these fields has been and will remain a major driver for the development of new biopharmaceuticals”.⁶²

Over the last years, biotechnologically derived drugs have consistently gained share in the most used (and most sold) pharmaceutical products. Biotech products accounted for the 21% of the global market for prescription in drugs (\$714 billion in 2012), resulting in a volume of sales of about \$150 billion.⁶³

High competition among companies is one of the key elements driving the success in the industry: biotech firms have to deal with other research-based pharmaceuticals and biotechnology companies that discover, manufacture and market proprietary pharmaceutical products.

Regulation plays a key role in all the Healthcare industry segments, but it is absolutely determinant in the biotech industry framework. The clinical development, manufacturing and marketing of biotech pharmaceutical products is subject to governmental regulation in the US, Europe and other countries. The United States’ regulatory framework has been designed by the Federal Food, Drug and Cosmetic Act, the Prescription Drug Marketing Act and the Public Health Service Act; while several directives drafted the European scheme. Securing approval to market a new product requires significant effort and financial resources: the process starts from preclinical tests and passes through several phases of clinical trials aimed to establish the safety and efficacy of the pharmaceutical product. Once the applicant receives authorities’ approval to market its product, it must comply with post-approval requirements that consist of reporting product’s adverse reactions, providing updated safety and

⁶² CROMMELIN D.J.A., SINDELAR R.D., MEIBOHM B., *Pharmaceutical Biotechnologies: Fundamentals and Applications*, Springer Science & Business Media, 2013.

⁶³ Source: “World Preview 2013, Outlook to 2018”. *Evaluatepharma.com*.

efficacy information, and complying with regulation concerning advertising and promotional materials.⁶⁴

The search for technological innovations in the field is another driver of companies' profitability, considering that the introduction of new products may let the company gain market share and consequently generate proceeds to invest in research and development.

The process of innovating through technological development has been very capital intensive and made biotech companies be largely unprofitable in aggregate historically, since the powerful results obtained by a small number of profitable public companies has been outweighed by the losses registered by a larger number of private firms. The industry started to mature and become profitable for investors in the early 2000's, experiencing great growth in revenues, and kept growing regardless the market crash (it must be cleared that growth in the years immediately after 2008 was mainly attributable to significant cost-cutting measures taken by firms, that reduced their R&D budgets)⁶⁵. The growth was mitigated by a slowdown in number of product approved by FDA⁶⁶, mainly due to concerns over patient safety and pressure from policy makers. However, 2012 marked a turning point in FDA product approvals, both in number of product (that achieved the 1998-1999 level) and in the nature of drugs approved, resulting in an increase in industry's revenues and M&A activity.

To compete commercially and reignite growth, large biotech companies must be the dominant players in some therapeutic product, so that M&A is a great tool for pharma companies that are willing to replace some of the blockbuster drugs they have in their portfolio whose patents are going to expire, with new drugs developed and produced by smaller companies in the industry.

Biotech industry revenues rose 60% from 2010 to 2015 and completely exceeded the S&P 500's growth in that period experiencing a 167% rise in market capitalization (S&P experienced a 78% rate of growth over the same period). The industry achieved the all-time high for revenue and market capitalization in 2014 and 2015. Global biotechnology revenues rose 13% to \$132,7 billion while R&D expenditures experienced a growth of about 16% to \$40,1 billion.

A larger growth in R&D investments compared to the rise in revenues confirms that biotech companies are still investing in developing new products.

The industry's cumulative market capitalization grew 5% resulting in a global capitalization of about \$1,1 trillion. (Figure 3.1)

⁶⁴ Source: "Regulation of Biotech Products by the US Government: the US coordinated framework". www.ncbi.nlm.nih.gov

⁶⁵ Source: "Biotechnology: Industry Analysis, Key Players and Future Trends". Song (2013).

⁶⁶ Food and Drug Administration, USA.

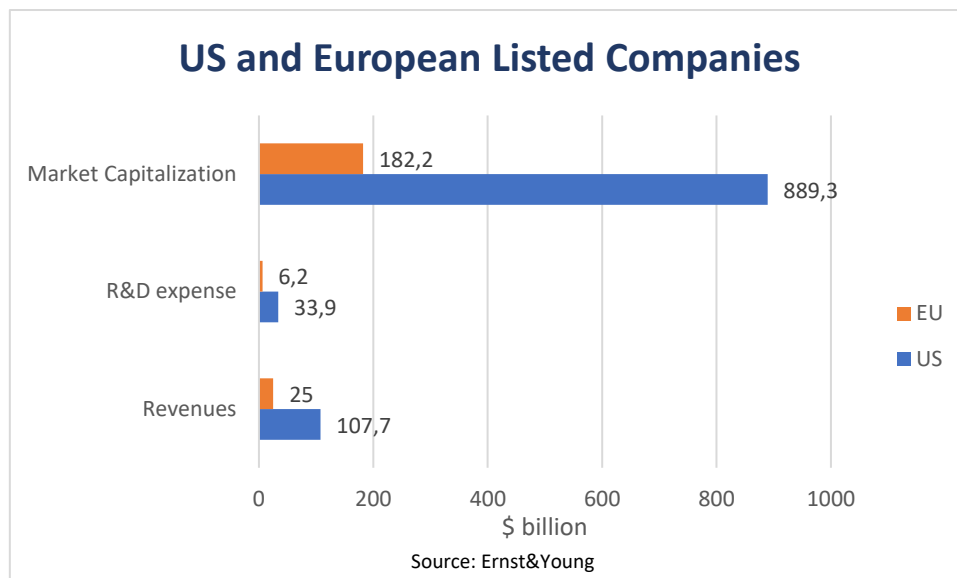


Figure 3.1 – US and European Listed Companies

A key driver of such a result can be identified in the high financing availability the sector experienced in last years, averaging about 17% of total investment since the years after the financial crisis⁶⁷, that made biotech firms cash-rich and equipped to invest and innovate despite the slowdown in the capital markets.

Larger companies drove the US market trends, with a dominance of Gilead that, thanks to seven drugs generating more than \$1 billion in 2015 sales, led the way in the US and globally, accounting for about a third of the all US industry’s revenue.

The European industry has been led by the Dublin-based Horizon Pharma and Shire (following its acquisition of Baxalta in 2016). However, values generated highlight the dominance of US-based firms in the industry: revenues, market capitalization and R&D expenditures for EU firms represent a quarter of the numbers performed by their US counterparts.

A key element of the EU industry growth, other than global factors, is represented by the expats of several US company: Alkermes and Jazz Pharmaceuticals became Dublin-based in 2010.

The entrance of US companies in EU market, coupled with sustained commercial successes made the market share of industry’s leaders increase in last years.⁶⁸ (Figure 3.2)

⁶⁷ Source: Ernst&Young, IQ Capital.

⁶⁸ Companies that generate more than \$500million.

2010	2011	2012	2013	2014	2015
8 companies	8 companies	9 companies	9 companies	9 companies	11 companies
Actelion	Actelion	Actelion	Actelion	Actelion	Actelion
Elan Corporation	Elan Corporation	Elan Corporation	Acquired by Perrigo		
Organic Growth and merger with Elan Drug Technologies in 09/2011			Alkermes	Alkermes	Alkermes
Organic growth					BTG
Eurofins Scientific	Eurofins Scientific	Eurofins Scientific	Eurofins Scientific	Eurofins Scientific	Eurofins Scientific
Organic growth					Horizon Pharma
Ipsen	Ipsen	Ipsen	Ipsen	Ipsen	Ipsen
Organic growth and relocation from USA to Ireland		Jazz Pharmaceuticals	Jazz Pharmaceuticals	Jazz Pharmaceuticals	Jazz Pharmaceuticals
Meda	Meda	Meda	Meda	Meda	Meda
Novozymes	Novozymes	Novozymes	Novozymes	Novozymes	Novozymes
QIAGEN	QIAGEN	QIAGEN	QIAGEN	QIAGEN	QIAGEN
Shire	Shire	Shire	Shire	Shire	Shire

Figure 3.2⁶⁹ – European Commercial Leaders 2010-2015

M&A activity helped large biotech companies to set records they achieved and 2015 showed a variety of biopharma industry’s trends: targeted divestitures, focused acquisitions and significant competition for biotech assets (driving the increase in valuations). Pharma companies used M&A as a quick tool to buy technology and scientific innovation from the market, most of the activity involved US-based firms and was characterized by strategic alliances. Overall deal value rose 120% over 2014 to \$100 billion, led by mega-deals. The sector saw 20 deals whose acquisition price exceeded \$1 billion over a total of 89 deals with disclosed terms. The acquisition of Imbruvica developer Pharmacyclics performed by AbbVie was the 2015 largest deal, representing an acquisition price of \$21 billion, and showed the trend of large companies to acquire market share: having only a partial ownership of Imbruvica, AbbVie gained a significant presence in the hematology/oncology market. (Figure 3.3)

⁶⁹ Source: “Biotechnology Report 2016: Beyond borders”. Ey.com.

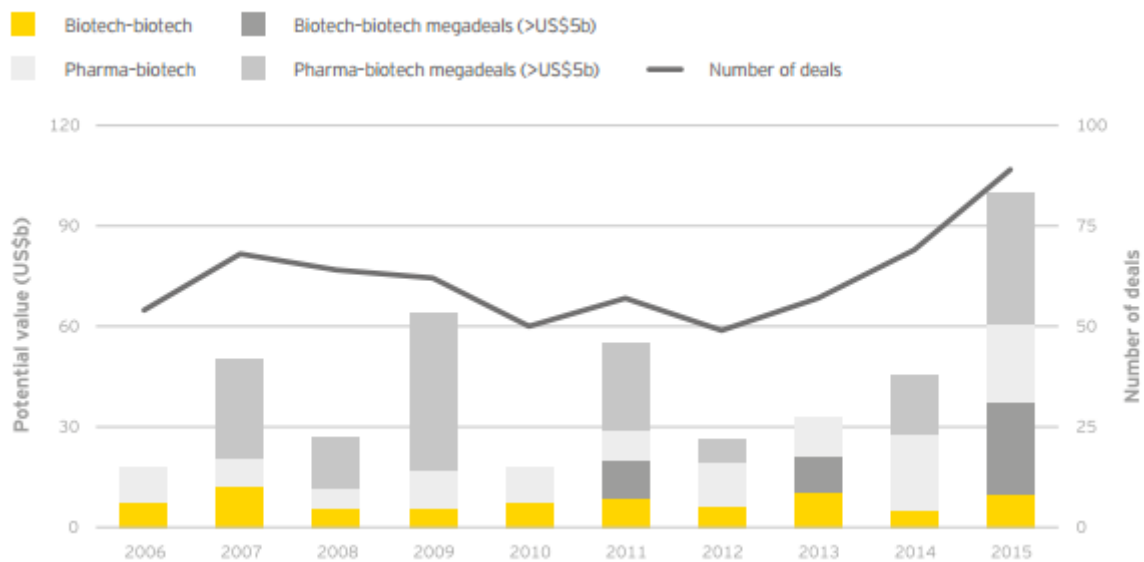


Figure 3.3⁷⁰ – US and European M&A Activity 2006-2015

2016 marked a slowdown in industry’s activity and performance, confirmed by the 21% drop in the NASDAQ Biotech Index registered in January, such a stop in the great growth rate experienced in last years may be mainly attributable to a drop-off in financing. Whether public or private and regardless of the company’s development stage, biotech companies have been able to take advantage of the free-flowing capital over the past two years, but since the fourth quarter of 2015, fundraising decelerated significantly (except for venture capital). However, the main drivers of success in the industry seem to remain intact, leaving room for a recovery of activities in coming periods: a favorable regulatory environment, public policy support, good opportunities for developing new technologies in key therapeutic areas and big pharma willingness to acquire innovation.

3.2 AbbVie

3.2.1 AbbVie: Corporate Profile

“AbbVie may have been founded in 2013, but our roots run deep. In 2013, we became a separate company from Abbott, though we share a common legacy and strong prospects for future success”.⁷¹

⁷⁰ Source: “Biotechnology Report 2016: Beyond borders”. Ey.com.

⁷¹ “AbbVie: Our History”.

AbbVie is a research-based global biopharmaceutical company that “develops and markets advanced therapies that address some of the world’s most complex and serious diseases. AbbVie’s products are focused on treating conditions such as chronic autoimmune diseases in rheumatology, gastroenterology and dermatology; oncology; neurological disorder and metabolic diseases”.⁷²

Abbott’s history started in 1888, when Abbot Alkaloidal Company was founded by Dr. Wallace C. Abbott, a freshly graduated physician and owner of a drug store in Chicago. The company’s production involved the use of a medicinal plant called “alkaloid” and first year revenues were about \$2000. Abbot grew and expanded its businesses with branches in New York, San Francisco, Seattle, Toronto and reached the European market through an agency in London, accounting more than 700 products in its catalogue. Such a growth was reflected in a change in company’s name and mission: Abbott Alkaloidal became Abbott Laboratories in 1915.

The founder died some years later, in 1921, and Dr. Burdick was named president of the company. During 1920’s the firm concentrated on the development of new drugs and consolidated its strong position in the pharmaceutical markets, entering the field of anesthetic products, and, in 1929, was listed on the Chicago Stock Exchange with a \$640,000 offering (20,000 shares for \$32 each).⁷³

The company focused on the development of antibiotics and, in 1941, was appointed by the US government as one of five pioneer companies to develop a large-scale production of the new anti-infective penicillin. The firm continued its businesses’ expansion during 50s and 60s, entering unexplored markets as radiopharmaceuticals and immunodiagnostics. In 1977 was founded TAP Pharmaceuticals, formed by a joint venture between Abbott and Japan’s Takeda Chemical Industries. Abbott experienced a phenomenal growth during 80s, sales nearly tripled, growing by double-digit rate every year, profits doubled and the company consolidated its position as a market leader in several sectors. In the first year of 90s, the company struggled to replicate the powerful growth rate experienced in the previous years and faced the risk of competitors gaining market share in a rapidly consolidating industry, so that Abbott itself started to penetrate new market segments through a significant M&A activity. Abbott acquired Sequoia-Turner Corp., that was operating in the hematology testing, and entered the glucose monitoring and vascular care market by the acquisition of Perclose and MediSense Inc.

Simultaneously with buying innovation from the market, Abbott continued its strong investment activity in internal R&D (that grew from 5.2% of sales in 1982 to more than 10% of sales by 1994)⁷⁴, achieving around \$1 billion investment in 1995.

⁷² “AbbVie: 2015 Annual Report, 10-K form”.

⁷³ Source: “A history of Abbott and AbbVie”. *Pharmaphorum.com*.

⁷⁴ PEDERSON J. P., *International directory of company histories*, St. James Press, 2001.

Companies' takeover trend continued in 2000s, the pharmaceutical business of BASF was acquired in 2001 for \$6.9 billion, allowing the company to expand its global scope and biotech capabilities, while Vysis Inc, acquired in the same year, made Abbott strengthen its position in the molecular diagnostics market. Abbott's portfolio and markets penetration have been expanded with several acquisitions performed between 2004 and 2010, including TheraSense, i-STAT, Guidant, Ibis Biosciences, Advanced Medical Optics, Visiogen and Evalve.

In 2011, Abbott announced its decision to separate into two leading healthcare companies: Abbott, that would continue its operation as a diversified medical producer, and AbbVie. The separation eventually took place in 2013 as confirmed by Miles D. White, Abbott's CEO: "We wish our colleagues at AbbVie continued success as they become part of a new, independent company that is already making a significant difference, focusing on highly specialized, market-leading therapies for some of the world's most difficult-to-treat diseases."⁷⁵ AbbVie started trading independently on the NYSE on the 2nd of January 2013.

AbbVie employs around 26000 people and is present in more than 170 countries, selling its products directly to wholesalers, distributors, healthcare facilities, government agencies and independent retailers.⁷⁶

3.2.2 AbbVie: Financial Statements' Analysis

AbbVie generated \$22,859 million revenues in 2015, growing by 14,52% compared to 2014, more than half are attributable to the worldwide sales of the product HUMIRA (around \$14 billion) and the post-acquisition revenues related to IMBRUVICA. (Figure 3.4)

EBITDA approximately doubled to \$7537 million as well as EBITDA margin, that increased by 92% to 32,97%. The company's financial performance delivered a fully diluted EPS of \$3,13, rising by 29,2% compared to 2014.

Among general industry's factors that contributed to revenues growth are an increase across therapeutic categories, higher market share gained by the company in last year, approval of new indications and favorable pricing of top sold products in certain geographic areas.

⁷⁵ Source: "Miles D. White, Chairman and CEO of Abbott, in a press release". January 2013.

⁷⁶ Source: "AbbVie: 2015 Annual Report, 10-K form".

AbbVie growth rates in revenues reflect top-tier growth in the segment in which the company operates, and is second in AbbVie’s peer group.

EBITDA and EBITDA margin’s growth reflect the positive impact of products diversification, operational efficiencies and favorable pricing conditions. However, the powerful optimization of expenditures has been mitigated by unfavorable foreign exchange rates.⁷⁷

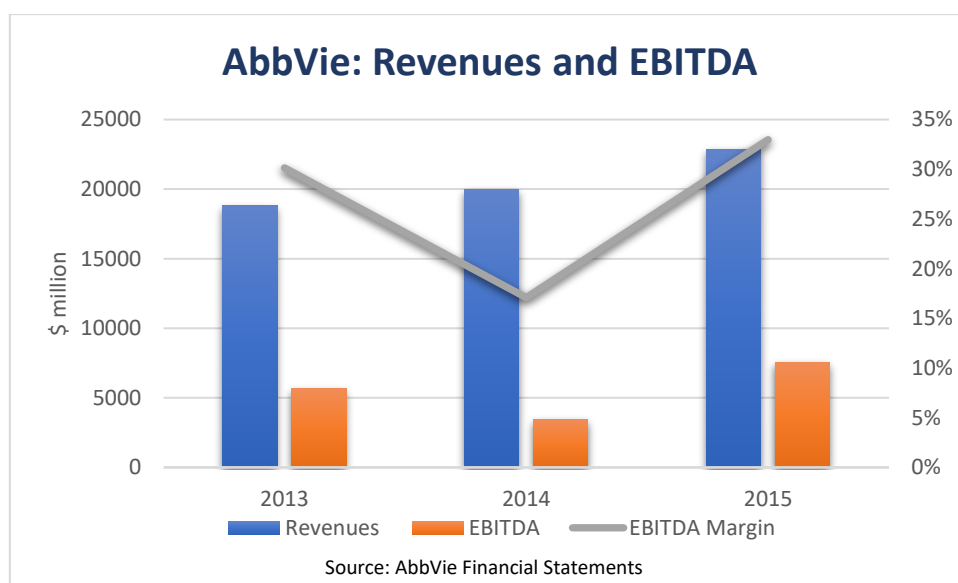


Figure 3.4 – AbbVie: Revenues and EBITDA

R&D expenses grew to \$4285 million in 2015, representing 19% of revenues and show the increased support to the company pipeline assets and further investments performed to develop additional HUMIRA indications.

AbbVie delivered, over the 3 years following the separation from Abbott, a total return to stockholders of 92,4%, beating the return delivered by comparable benchmarks as S&P 500 Index and the NYSE Arca Pharmaceutical Index. Such a return makes AbbVie take place in the top quartile of Health Care peers.⁷⁸

Company’s shares started trading at \$34.46 in January 2013 and rose to \$59.81⁷⁹, with a total market capitalization of \$98.2 billion, reflecting investors’ confidence and company’s successful operational and financial performances.

AbbVie’s great positioning is confirmed in the return delivered compared to its main competitors. The company achieved the best performance among its peers⁸⁰, and its strong positioning and

⁷⁷ Source: “AbbVie Annual Report 2015”.

⁷⁸ Source: “Google Finance”.

⁷⁹ Closing price on the 30th January 2017.

⁸⁰ Pfizer (PFE), Novartis (NOTA), Sanofi (SANF), Bayer (BAYRY).

powerful results experienced by AbbVie are likely to be improved in coming years, as the company has established growth platforms in several attractive market segments, including immunology, oncology, virology and neurology, having built a solid pipeline in such sectors. (Figure 3.5)

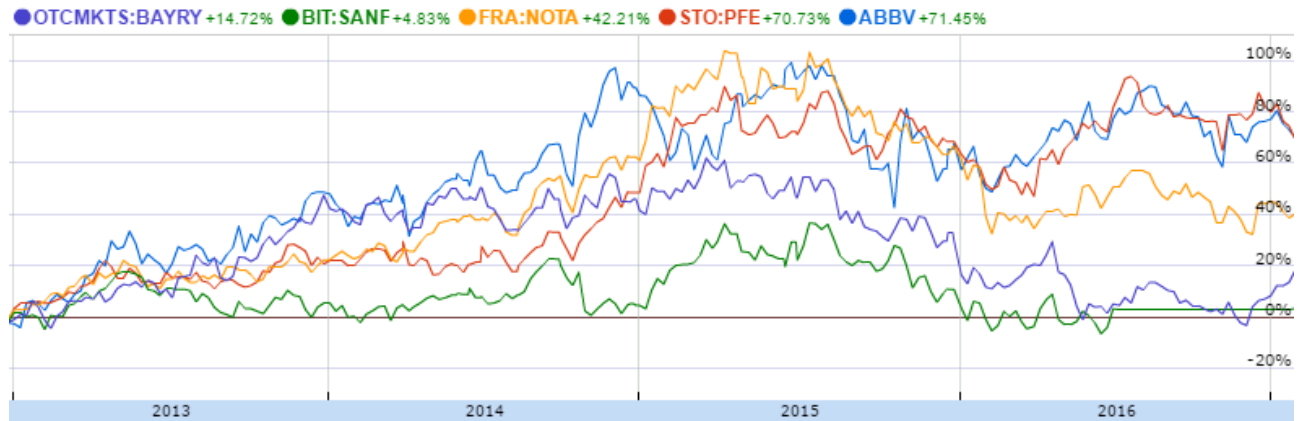


Figure 3.5⁸¹ – AbbVie’s performance related to main competitors

Firm’s managers confirmed the view of growth and expansion setting high long-term strategic and financial objectives, including an expectation to generate revenues of approximately \$37 billion by 2020 while delivering an annual double-digit EPS growth on average.

3.3 Shire

3.3.1 Shire: Corporate Profile

Shire is a fast-growing biotech company that focuses on developing and marketing innovative medicines for patients with rare diseases and other select condition.⁸²

The company was founded in the Hampshire, United Kingdom, in 1986 “when a small team of entrepreneurs sought out a solution to address on a number of unmet medical needs. Within its first two years of operation, the company had launched a range of supplemental calcium products for patients seeking to treat or prevent osteoporosis. Soon thereafter, innovative drug development programs were under way on behalf of patients facing such challenging conditions as Alzheimer’s disease and end-stage renal failure”.⁸³

⁸¹ Source: “Google Finance”.

⁸² Source: “Shire Financial statements 2015”

⁸³ “Shire: Our History”.

During the 90s, Shire started a significant M&A activity, in order to expand its businesses and range of products offered, other than becoming involved in several research and development collaborations.

The first acquisition was performed in 1995, when Shire acquired Imperial Pharmaceutical Services, another Hampshire-based firm. On the same year, the company made one of the most profitable step it has ever made: Shire entered a global co-development agreement with Johnson and Johnson Pharmaceutical Research and Development to develop Reminyl, a pharmaceutical product for the treatment of Alzheimer's disease. Today, this product has made millions for Shire.⁸⁴

Company's growth and expansion, coupled with the desire to become larger and leader in the market segment, have been reflected in a historical event for the firm: Shire got listed on the London Stock Exchange in February 1996. Equity markets gave Shire the opportunity to enhance its financial capabilities and invest in developing and innovating, both through its internal R&D and M&A activity. In 1997 two other companies were taken over: Pharmavene, a company with a broad portfolio of drug delivery and screening technologies, and Richwood, active in the ADHD⁸⁵ treatments. Those acquisitions led to the creation of the first US-based Shire laboratory.

By the end of the decade Shire made a significant merger with Roberts, entering the anti-inflammatory medication market segment, and expanded its European marketing network through the acquisition of FuisZEU. As a result, in about 15 years of activity, Shire had effectively doubled its size. In 2001, Shire merged with BioChem Pharma, a Canadian company, and started entering the rare diseases sector acquiring TKT (that would later become Shire Human Genetic Therapies). In 2005-2008, the company continued its technology platforms and catalogue's widening process acquiring New River, Jerini AG and Firazyr, and opened its first Japan-based office. By 2010, Shire entered the gastrointestinal medicines' sector through the acquisition of Movetis NV, and the diabetic foot ulcers' treatment by taking over Advanced BioHealing, that would later be renamed as Shire Regenerative Medicine. Other acquisitions performed in last years include Ferrokin Biosciences, Pervasis Therapeutics, Lotus Tissue Repair, Premacure AB and SARcod Bioscience.

In 2016, Shire completed the acquisition of Baxalta for \$32 billion, Baxalta is the former Baxter Bioscience global biopharmaceutical business with a focus on developing new treatments for people with orphan diseases and underserved conditions. The acquisition will make Shire achieve an increased efficiency, expecting to carry out more than \$500 million in cost-cutting and synergies.

All the mergers and acquisition performed by Shire over the past decades made the company reach its original objective to "achieve leading market position in each of its target therapeutic areas while

⁸⁴ Source: "A history of Shire". Blake (2013).

⁸⁵ Attention Deficit Hyperactivity Disorder.

imagining and leading the future of healthcare, enabling people with life-altering conditions to lead better lives, thus creating value for society”.⁸⁶

Shire actually employs more than 5500 people and has offices in 50 countries, selling its product in more than 72 countries around the world. The company achieved a strong positioning, that would be enhanced following the acquisition of Baxalta, as market leader in the rare diseases’ treatments market.

3.3.2 Shire: Financial Statements’ Analysis

Shire’s revenues grew by 6,55% to \$6416,7 million in 2015, the growth has been both organic and acquisition-related (Shire completed a series of transactions including NPS, with sales of \$142 million). 45% of product sales are derived by revenues from rare disease products, 36% from Neuroscience products and 19% from Internal Medicine, reflecting company’s diversification among sub-segments in which it operates; revenues from product sales account for the 95% of total sales while the remaining 5% is represented by royalties. Revenues are expected to grow in coming years as the combination with Baxalta will enable shire to become a global leader in rare disease. (Figure 3.6)

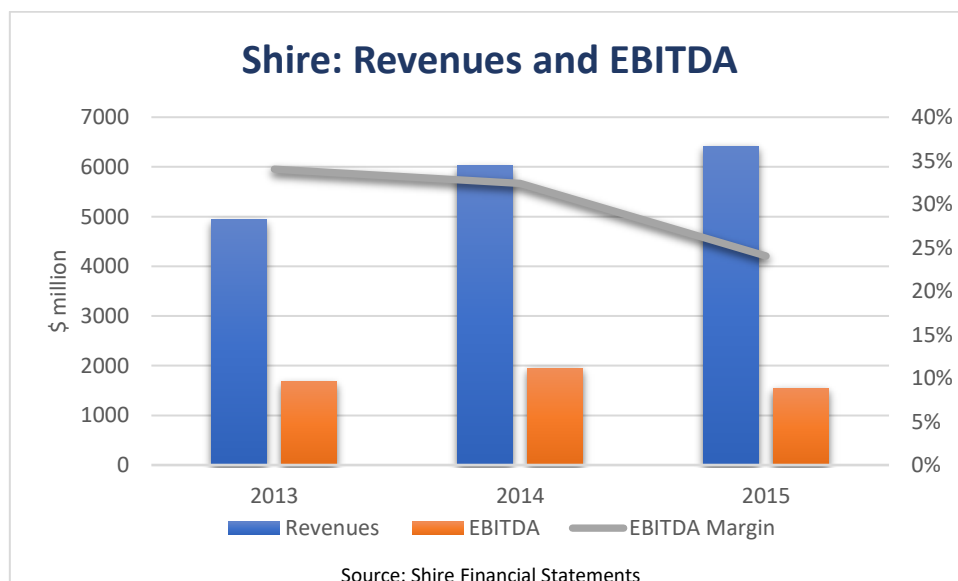


Figure 3.6 – Shire: Revenues and EBITDA

⁸⁶ Matthew Emmens, Shire’s Chairman of Board of Directors, in 2008.

EBITDA dropped 25% to \$1542,5 million in 2015, as well as EBITDA margin did, as a result of increased investment in one of the main driver of biotech companies' sustainable success: R&D.

Investments in R&D rose by 46.6% to \$1564 million, representing 24.4% of company's sales (17.7% in 2014), and reflect Shire's efforts in obtaining regulatory approval for later-stage pipeline products and fueling research activities in rare disease.⁸⁷

Evidence of the successful progression of the products in pipeline is represented by approvals obtained: Shire's most important products launched, among others, have been FIRAZYR in 2011 and VYVANSE and NATPARA in 2015.

Shire's powerful financial performances achieved in last years are confirmed by the return it delivered to its shareholders. Company's performance beat the S&P500 index and have been in line with the return given by the US Nasdaq Biotech Index, delivering a total return to shareholder of 83,59%,^{88 89} achieving a share price of \$167.81⁹⁰ and a total market capitalization of \$50.38 billion. (Figure 3.7) Company's diluted EPS dropped by 62% to \$2.2 (it was \$5.76 in 2014), such a drop is mainly attributable to the strong performance achieved in 2014 following the unrepeatable benefit related to the \$1.64 billion break fee received from AbbVie's terminated offer for Shire.

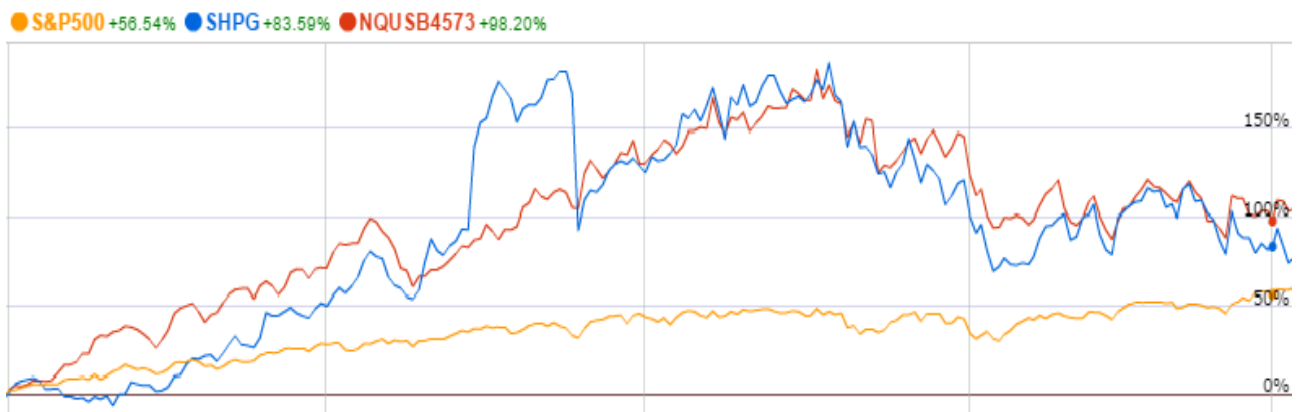


Figure 3.7 – Shire's return compared with S&P500 and US Biotech Index, 2013 to today

Shire (SHPG) strong positioning is reflected in the company's performance relative to competitors: Shire delivered the second higher return among its peers⁹¹. The combination with Baxalta will

⁸⁷ Source: "Shire Annual Report 2015"

⁸⁸ Source: "Google Finance".

⁸⁹ The reference period is 2013 to today.

⁹⁰ Closing price on the 30th January 2017.

⁹¹ Johnson&Johnson (JNJ), Novartis (NVS), Diamedica (DMCAF), Oxford Biomedica (OXB).

consolidate the company's leadership in the industry and will give Shire the opportunity to penetrate other market segments. (Figure 3.8)

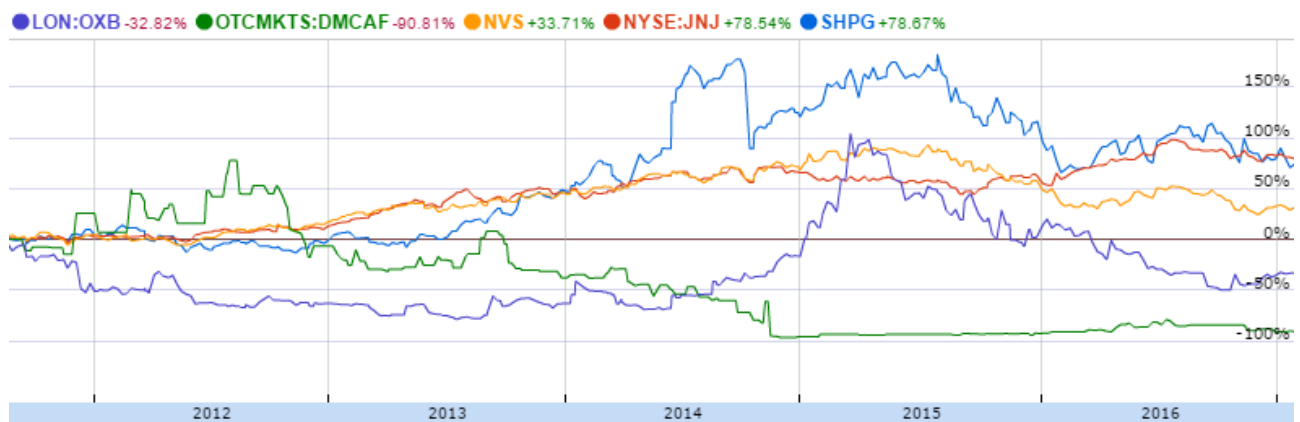


Figure 3.8⁹² – Shire's performance related to main competitors

Changes across diseases and patient population, increasing levels of physician engagement and rising demand for value and reimbursement will create an exciting playing field rich in opportunities for Shire, shaping a straight road to success.

3.4 The failed merger between AbbVie and Shire

M&A activity has been historically used by companies as a tool for expanding their businesses, buying technology from the market, weakening the competition in their industry and accelerating their growth. Other than those growth-related reasons, another driver that makes a company undertake a M&A exists, and it is linked to tax inversion benefits.

Tax inversion “is a piece of financial engineering that multinational companies use to reduce their tax bill. One company buys a rival based in a different country with a less onerous tax policy. It then reincorporates by shifting the address of its headquarters to the country with the lighter tax burden. In many cases the main business might remain in the original country but the firm simply holds some of its board meetings in the new jurisdiction”.⁹³

⁹² Source: “Google Finance”.

⁹³ DAVIES R., Pfizer-Allergan: what is a tax inversion deal and why do firms do them?, *The Guardian*, April 2016.

Tax inversion deals became popular in 90s among US companies, that, having to face highest corporate income tax in the developed world, started to think about renouncing their US citizenship to adopt legal address abroad. (Figure 3.9)

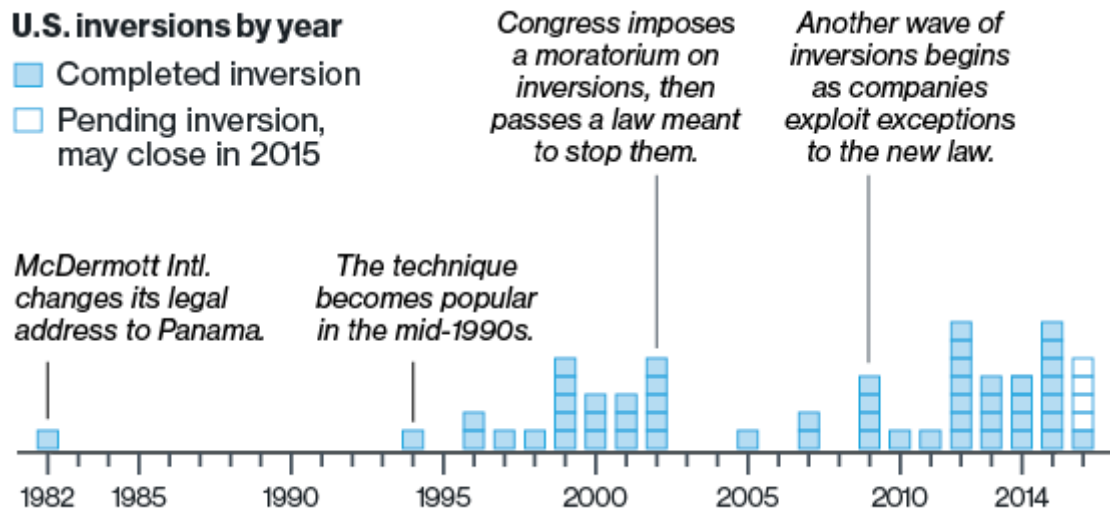


Figure 3.9⁹⁴ – US inversion deals by year

Ideal target companies for an inversion deal are then companies operating in the same industry as the firm willing to expatriate, with a good positioning in the market, solid financial conditions, sustainable cash-flow generation and, most importantly, legal address in a country with low or no corporate income taxes. Bermuda has been the most popular destination a in the last decade, nowadays the most attractive countries are UK and Ireland. (Figure 3.9)

⁹⁴ Source: "Bloomberg: Tracking Tax Runaways". Bloomberg.com.

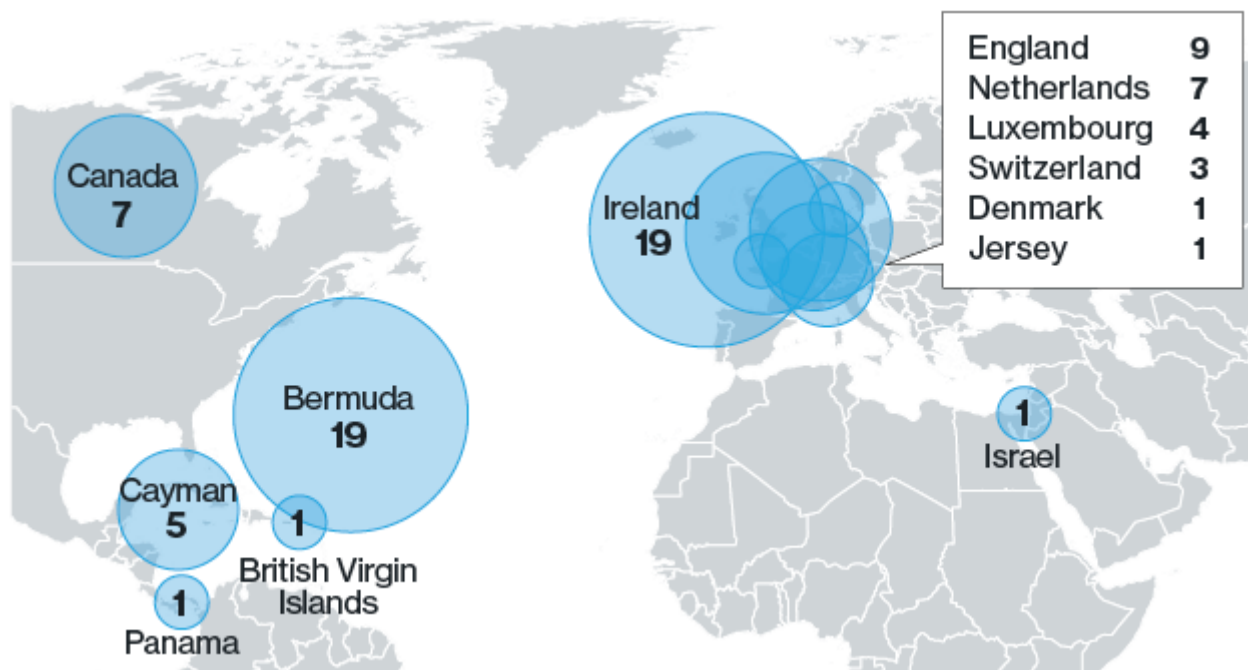


Figure 3.10⁹⁵ – Most attractive countries for inversion deals

US Government has made several attempts to prevent and discourage inverters, trying to reduce the tax benefit available to them. This was the case of the Government’s intervention on tax policies in 2014, when AbbVie was planning to merge with Shire and relocate in the United Kingdom.

On the 18th of July, AbbVie offered \$55 billion to takeover Shire and avoid the 35% taxes on domestic earnings, partly financing the deal through hopscotch, one of the benefit of the tax inversion deals, that are loans that let companies access foreign cash without paying US taxes.

The offering resulted in a value of £52.48 a share, paid with a mix of cash and share in the new company: Shire’s shareholders would receive £24.44 and 0.8960 new AbbVie’s share. The price was 53% above the shares’ closing price on the day before the official announcement.

The deal was intended to be more than a tax inversion deal, as confirmed by the AbbVie CEO Richard Gonzalez: “This is a transaction that we believe has excellent strategic fit, well beyond the tax impact. We wouldn’t be doing it if it was just for the tax impact”. AbbVie was looking for a diversification of its business, mainly based on HUMIRA sales performances, and was interested in enter the rare disease market: “By combining AbbVie and Shire, we’re creating a unique, diversified biopharmaceutical company. The combined company would benefit from a best-in-class product development platform, a stronger pipeline and more enhanced R&D capabilities. The combination of AbbVie and Shire is attractive for shareholders of both companies, bringing the potential for strengthened sustainability of top-tier EPS growth, attractive free cash flow and enhanced cash returns

⁹⁵ Source: “Bloomberg: Tracking Tax Runaways”. Bloomberg.com.

to shareholders. The combination would provide us with enhanced access to cash that we can use to expand our portfolio and fund M&A to supplement organic growth.”

Shire’s Chairman, Susan Kilsby, confirmed the company’s willingness in closing the deal, imagining a rosy future for the combined company: “Shire has a long track record of delivering value for both shareholders and patients. Our growth profile has been accelerated under our new management team who have successfully executed a focused strategy. We believe that this offer reflects the substantial value that we have already created for Shire’s shareholders and the strength of our future prospects. We believe that the combined group represents an exciting fit of two complementary businesses that will create a new market leader in specialty pharmaceuticals with a portfolio of fast growing products, a promising pipeline and enhanced growth prospects.”⁹⁶

However, Shire’s management was not as certain as AbbVie’s about the closing in the case of the US government’s intervention in regulation, so that a protection for Shire was conveyed and a 3% of the deal’s value breakup fee (about \$1.6 billion) was included in the agreement as a reimbursement for efforts and merger-related costs.

The share price of the target, Shire, rose as expected by 4% in the day immediately after the announcement.⁹⁷

As rumors about the US Treasury Department’s intervention started to spread in the market, the AbbVie management reinforced its intention of closing the deal, certain that the potential bill would not critically impact the deal’s profitability, as confirmed by the CEO in a letter sent to Shire employees: “I’m more energized than ever about our two companies coming together, especially because I can already see many shared traits and values in the people at AbbVie and Shire”.

The US Treasury Department eventually issued the notice aimed to made it harder for companies that set up their legal address abroad to avoid the US’s high rate of income taxes, making the inversion deal less profitable.

More precisely, the new rule applied to the hopscotch, making impossible for companies to make intra-company loans to the overseas acquired firm, bypassing the US taxation.⁹⁸ The notice was also aimed to “prevent inverted companies from restructuring a foreign subsidiary in order to access the subsidiary’s earnings tax-free; close a loophole to prevent an inverted companies from transferring cash or property from a CFC⁹⁹ to the new parent completely avoiding US tax and making it more

⁹⁶ Source: “*Financier Worldwide*”. *Financierworldwide.com*.

⁹⁷ Source: “*Bloomberg Business*”. *Bloomberg.com*.

⁹⁸ Source: “*US clamps down on tax inversion deals*”. *Pmlive.com*.

⁹⁹ *Controlled Foreign Companies*.

difficult for US entities to invert by strengthening the requirement that the former owner of the US entity own less than 80% of the new combined entity".¹⁰⁰

Considering the change in US regulation, AbbVie's managers said that the new rule "introduced an unacceptable level of risk and uncertainty into takeover" and decided not to close the deal; since some of the expected financial benefits could not be achieved, the deal was no longer in the best interest of shareholders. AbbVie paid a \$1.64 billion breakup fee because of the failed merger effort.

In abandoning the deal, AbbVie cited the Treasury department for "re-interpreted longstanding tax principles in a uniquely selective manner designed specifically to destroy the financial benefits of these types of transactions."¹⁰¹

AbbVie shares ticked up about 2% after the announcement, while Shire's shareholder saw their value dropped by 25%.

The measure taken by the US Treasury will make the industry more genuine and competitive, trying to avoid companies' mergers led by financial engineering rather than growth perspectives, that could be seen as an upgrade. However, such measures, and all other measures aimed to discourage companies to take advantage of benefits offered abroad, in order not to be restrictive, should be followed by an attempt to make differences among developed countries as low as possible, letting companies operate in a truly competitive market.

¹⁰⁰ "Treasury Action to Rein in Corporate Tax Inversion". US Treasury Press Center, 9/22/2014.

¹⁰¹ Source: "Brian Solomon, Forbes".

Conclusions

It is commonly accepted that Mergers and Acquisitions have been playing a key role in companies' growth and goals' achievement, allowing firms to diversify their businesses, enter new market segments, innovate and enhance their technological capabilities and accelerate their growth rate by creating synergies and weakening the competition in their sector.

The work shows that M&A activity, over the last century, has come in waves and identifies in globalization, a loose monetary policy that makes the financing easier with low interest rates, equity markets conditions and an increased competitive pressure in the sector, the main factors driving the rise of activities in favorable periods.

The study of the European M&A industry over last decades illustrates the evolution that the market experienced following the European regulators' attempts to create a harmonized and integrated cross-borders market.

The introduction of the Euro currency, that created a more liquid European Capital Market, and several directives aimed to harmonize the regulatory framework, helped the European industry in achieving the United States' relevance in global activities.

The analysis of the European Healthcare industry shows the increased relevance of the sector in the European market.

Technological innovation and regulation compliance are the key elements driving the success in the industry: controls and regulation have an important influence on the way activities are carried out, setting operating requirements, professional qualifications of employees, corporate governance constraints and the pricing and reimbursement levels.

A successful technological innovation will enhance the company's performance, considering that the introduction of new products may let the company gain market share and consequently generate proceeds to invest in research and development.

Companies operating in the Healthcare sector are subject to risks belonging either to general financial markets condition and to specific risks of the industry.

Specific risks of the sector are changes in the regulatory framework made by regulators, delay in developing new technologies resulting in a tight pipeline, increased price competition and legal risks. Generic risks as interest rate, financing, credit or counterparty risk, volatility and overall economy conditions affect companies' activity and revenues. However, the influence is not so strong as it is in other sectors: Healthcare market is not generally regarded as very sensitive to macroeconomic cycles and factors.

M&A has been a significant tool for companies that wanted to face those risks becoming larger and more stable: a geographical coverage expansion, the aim of building a more solid business and the opportunity to buy knowledge and specialists from the market have been the main reasons that led companies invest their resources in consistent acquisition of smaller firms.

Ideal targets have been companies with a good positioning in the market, innovative technologies involved in production, solid financial conditions and a sustainable cash-flow generation.

The first case study shows the benefits related to undertaking a M&A process from a strategic buyer's point of view: a highly-fragmented market opens up opportunities of consolidation and institution of a big champion in the industry.

A strategic buyer is not only interested in absolute return, but it profits also from synergies and increased efficiency, other than from weakening the competition in the sector. Therefore, a strategic buyer could be willing to pay more for a company, if compared to a financial buyer that is only interested in pursuing the return on the investment.

The second case study illustrates how it is possible for a firm to undertake a M&A process in order to take advantage of differences in countries' regulation, especially about taxes on earnings generated, and how a Government's measure may damage the expected profitability of a deal.

Tax inversion deals can be seen as a financial engineering tool that allows companies to reduce their tax bill by buying a rival based in a different country with a less onerous tax policy. It then reincorporates by shifting the address of its headquarters to the country with the lighter tax burden.

Buyer will profit by reducing its tax burden and by accessing intra-company loans free from own-country taxes.

Bermuda, United Kingdom and Ireland have historically been the most attractive countries for companies looking for an inversion deal.

The case study shows how Government have always been active in fighting serial inverters, adopting measures aimed to make inversion deals less profitable for buyers.

The last action has been made by US Treasury that issued a notice aimed to prevent inverted companies from restructuring a foreign subsidiary in order to access the subsidiary's earnings tax-free. The notice impacted on the inversion deal's profitability, making involved companies abandon the deal.

Case studies' results show the effectiveness of a strategic deal made by merging two big players in a sector with a high growth potential and highlight the output of changes in regulation in the inversion deals framework.

Success of the strategic deal is the result of a careful consideration of the market's dynamics and target companies, it must be cleared that the case study shows the initial success of the deal, the real

output should be confirmed by company's performance in coming years. However, balancing drivers of growth and risks that companies have to deal with, considering the strong positioning and the significant opportunities available on the market, the financial performances of the merged company are likely to grow.

Failure of the inversion deal is mainly attributable to the underestimation of the impact of a possible Government's intervention in the regulatory framework.

Management of the acquirer company confirmed the deal was not a tax inversion only, since the company was looking for a diversification of its products. However, the issuance of the notice led to a review of deal's profitability and eventually made companies drop off the deal, showing the mismatch between the forecasted and real impact of the change in regulation.

Summing up the results discovered in the research, it is possible to shape the future steps the European Healthcare industry could take.

The work showed that access to capital at low interest rates is one of the main driver of an increase in activities: credit recovered after 2008 crisis and the loose monetary policy is likely to continue in coming years, so that it would be easier for investors to spend cash pursuing profit.

The rate of innovation and digitalization in Healthcare trails in comparison to other industry, leading the rise of the Healthcare relevance among other sectors, moving forward the medicine and helping to identify the risk of certain diseases, allowing for the early detection of potential problems before the definitive diagnosis and eventually offering new and alternative treatments to the most difficult-to-cure diseases.

Brexit's effect on the industry must be taken into account since the UK vote for exit the EU put uncertainty in the market. However, a weakened Pound will make UK companies more attractive to foreign buyers, fueling the market with fresh capital.

Long term macro fundamentals are favorable to activity in the sector since the aging populations and chronic disease fuel demand in developed markets, as cost pressures continue across the world and as people in developing economies seek new or expanded access to healthcare.

Growth potential in the Healthcare sector is great and the sector has not a high sensitivity to the macroeconomic cycles and factors. However, investors should be aware of the risks associated with investing in high-growth industries, as they tend to form bubble and pop.

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Department of
Economics and Finance

Chair of
M&A and Investment Banking

M&A Activity in the European Healthcare
Market: Two Case Studies
(Summary)

SUPERVISOR

Prof. Marshall Langer

CANDIDATE

Alessio Bergodi

Student Nr.665761

ASSISTANT SUPERVISOR

Prof. Francesco Baldi

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Introduction

The aim of this work is to investigate the relevance that the Mergers and Acquisitions activity assumes in the global industry and more specifically in the European Healthcare sector.

Reasons that make a company undertake an M&A are various: a firm could be willing to expand its businesses, weaken the competition in its industry, buy technology from the market or accelerate its growth. Furthermore, other than those growth-related reasons, M&A can be used as a cost-cutting driver.

Two case studies will be analyzed in order to show in practice how a M&A process works and which are the main factors driving the M&A activities in the European Healthcare market.

The first case study will focus on M&A activities undertaken by a strategic buyer and will regard a merger that took place in 2015, when two companies providers of medical diagnostics in the clinical laboratory services market, Synlab and LABCO, have been taken over by a Private Equity fund and then merged in a new company that eventually became a champion in the industry.

The second case study will provide an example of an inversion deal not concluded due to US Government intervention, studying the case of the failed merger between two research-based biotechnology companies, AbbVie and Shire.

1. Global M&A Activity

M&A has been a significant activity since the end of the 19th century, when in the United States started a horizontal merging process that ended in the birth of the big industries of steel, telephone, oil, mining, railroad and other manufacturing. (Figure 1.1)

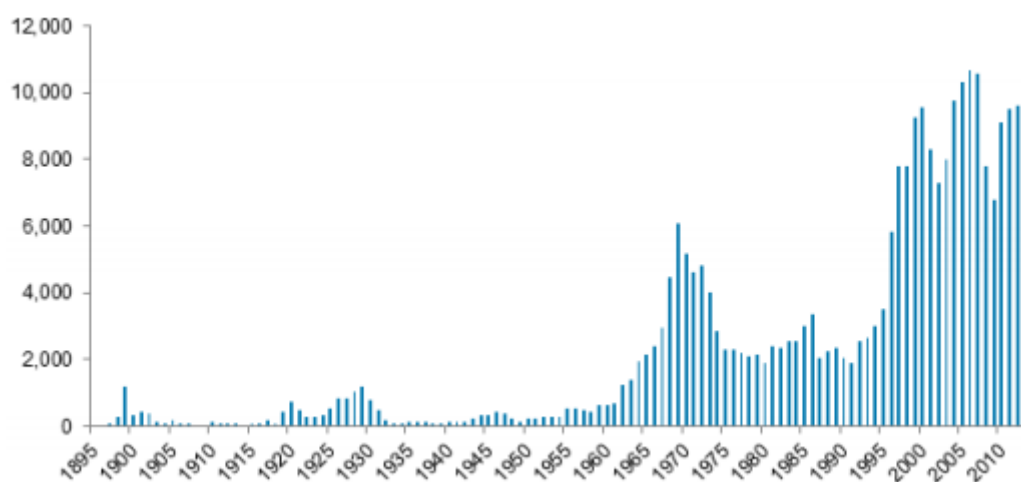


Figure 1.1 - Number of M&A operations in the U.S. 1895 to 2015

High time peaks were registered in 2007 and 2015 with a deals' value respectively of 3.7 and 3.9 trillion of dollars, accounting for a relevant percentage (8%-6%) of the global GDP. Among the principal factors of such a rise in activities are globalization, favorable financial markets' conditions, rise in commodities price, a huge growth of Private Equity funds and a loose monetary policy that makes the financing easier with low interests.

1.1 European M&A Activity

The European M&A activity, especially in the period immediately after the Internet Bubble, has been particularly remarkable and reached, for the first time, the weight that United States M&A has in the global M&A industry. The main drivers of this powerful growth can be found in the introduction of Euro currency, which created a more liquid European Capital Market, a process of globalization, technological innovation, deregulation and privatization as well as the financial markets' boom. Last two years have been characterized by a weakened Euro currency, that drove foreign companies to invest in Europe and encouraged Member States to invest in the domestic market while low interest rates and economic growth in the U.S. made cheap debt available to corporations to fund activities. Breaking down the European M&A industry in the sectors that contribute to set up capital flows a first relevant conclusion comes up: leading sectors are Industrial&Chemicals and Technology, reflecting the need of constant competitive reinvention in segments where technology development and progress is the main driver for profit and competitiveness, coupled with a rapidly changing customers demand. M&A is then useful to acquire new technologies and expertise on the market and to capitalize opportunities of expansion. (Figure 1.2)

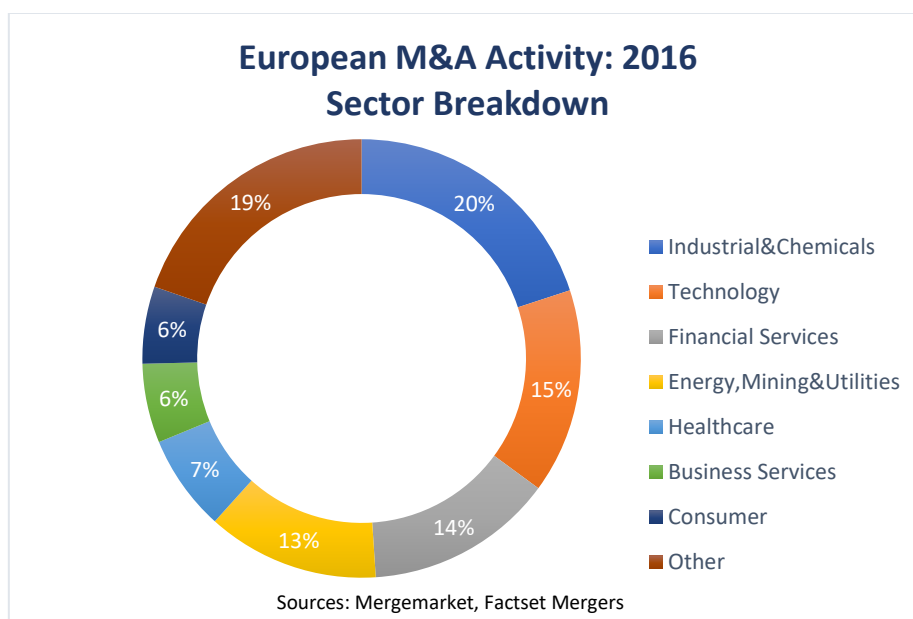


Figure 1.2 – European M&A Activity 2016: Sector Breakdown

Healthcare M&A industry accounted for about the 4% of European M&A activity in 2015 and was close to double its weight in 2016. The golden year was the 2014, when the industry achieved the record of \$117.0 billion in transactions value: tax inversion deals boosted total values as individual price tags increased, with two deals above \$10 billion (against none in 2013), the acquisition of Covidien and the sale of Glaxo Smith Kline’s oncology business. Pharma played a central role in cross-border deal flow, amounting to about a quarter of total inbound (\$74,1 billion) and 37,4% of outbound (\$136,7 billion). (Figure 1.3)

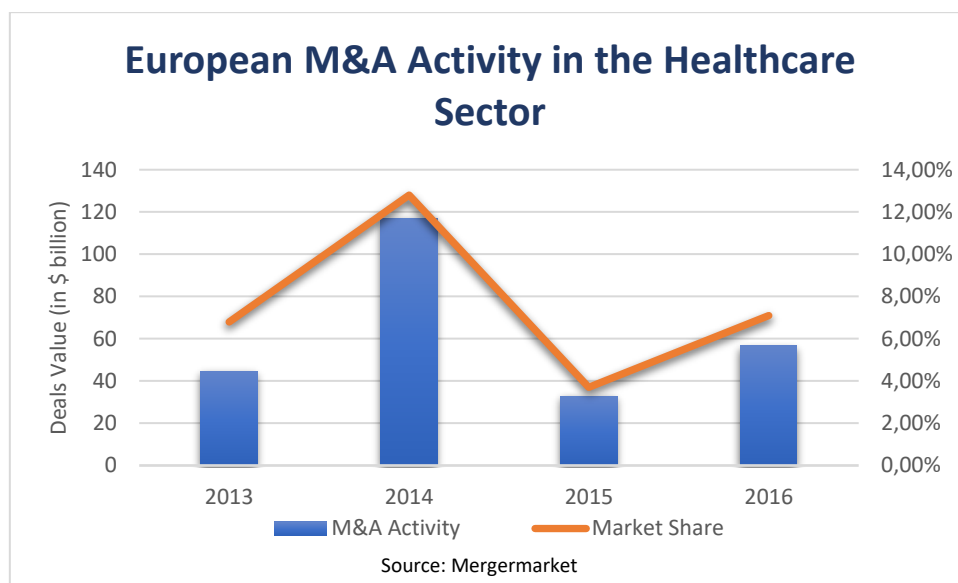


Figure 1.3 – European M&A Activity in Healthcare Sector

The healthcare industry is a staple for Private Equity investors’ portfolio and is expected to grow in importance when the macroeconomic framework is unstable, since the sector offers good assets, favorable deals and allow creative ways to complete exits.

Private Equity activity was fueled by a favorable framework: being healthcare a necessary activity that makes up a large portion of GDP in many countries and underlying demand remains strong through economic cycles, medical industry can be considered a safe haven; slow economic growth made investors look for different and challenging sector to invest in; wide availability of cheap financing and good equity markets’ conditions, as well as tax inversions benefits, resulted in a rise of investments in healthcare companies.

1. Case study 1: The merger of LABCO and Synlab

The two companies subject of the case study, Synlab and LABCO, are providers of medical diagnostics in the clinical laboratory services market.

Companies offer a wide range of clinical laboratory tests, whether routine or specialty. The nature of these services varies among countries. Routine tests consist of regular healthcare controls that allow health professionals to establish or confirm a diagnosis, to monitor treatment or to search for an undiagnosed condition. Specialty involves a high level of complexity: tests are conducted by highly skilled biologists and specialists and sophisticated technologies, equipment and material are generally used.

Technology, regulation compliance and a wider offer of tests performed are, among others, the main factors driving the success in that sector.

Companies operating in this sector are subject to risks belonging either to general financial markets condition and to specific risks of the industry. Generic risks as interest rate, financing, credit or counterparty risk, volatility and overall economy conditions affect companies' activity and revenues. Risks that characterize the medical sector are Healthcare industry's reforms made by regulators, delays in third-party payments,¹⁰² increased quality and price competition resulting from changes in the competition framework due to the tendency of consolidating small companies, legal risks related to disputes and litigation. M&A has been a significant tool for companies that wanted to face those risks becoming larger and more stable: a geographical coverage expansion, the aim of building a more solid business and the opportunity to buy knowledge and specialists from the market have been the main reasons that led medical services providers' companies invest their resources in consistent acquisition of smaller firms.

2.1 LABCO

LABCO was founded on the 5th of June 2003 in Paris and was the holding company (directly or through other controlled companies) of all its French and foreign laboratory-operating subsidiaries. The group started operating in France and then expanded across the Europe making various acquisitions that made it one of the main player in the diagnostics services market.

¹⁰² Most commonly taken tests are usually paid by the National Healthcare system.

LABCO is present in more than 50 hospitals centers and performs over 50 million tests every year for about 20 million patients. The catalog of tests offered by the firm is one of the wider available on the market, including more than 5000 tests.

Tests offered include DNA genetic testing and analysis, a sector in which the company is a market leader. The result of a genetic test can confirm or rule out a suspected genetic condition or help determining the chance of developing a genetic disorder. Offering genetic tests differentiate LABCO from its main competitors, as usually there is a differentiation between companies only providing a wide offer of diagnostic tests, as Synlab and Unilab do, and companies specialized in high-specialty and research-based genetic tests.

The group generated revenues in 2014 of €615,6 million experiencing a growth of 12,48% compared to 2013.

2.2 Synlab

Synlab started its activity in 1998, when Dr. Bartl Wimmer (former Synlab CEO and actual CEO of the new SYNLAB group) established Synlab GmbH as an “association of freelance laboratory physicians”¹⁰³ in Augsburg. The company generated revenues of about €30 million.

Synlab followed the market trend of consolidation acquiring several small-sized laboratories in Germany and started to gain market share in the sector. However, the company’s growth was not as strong as competitors’, since Synlab focused its investments on the domestic market, rather than penetrating in other countries.

The turning point came in 2009, when Synlab was taken over by the Private Equity fund BC partners, that acquired the Austrian Future LAB in the same year, with the objective of expanding the group’s businesses through the Europe. Acquisitions of Centro Diagnostico San Nicolò and Italian Fleming Labs made a company become one of the top European medical services providers’ firm generating €427 million revenues.

The group provides clinical diagnostics tests, medical check-ups and screening, anatomic pathology tests, in addition to facilities, technologies, logistics and materials required to operate collaborative and hospital laboratories. Synlab expanded its clinical tests’ offer to veterinary sector and is active in the areas of hygiene, pharmaceutical studies and conventional environmental analysis. The group’s clinical tests offer’s account about 6000 different tests.

¹⁰³ “SYNLAB: Our History”.

The group generated revenues in 2014 of €729,4 million experiencing a growth of 8,67% compared to 2013.

2.3 The merger of LABCO and Synlab made by Cinven: SYNLAB

Medical services' provider is an attracting sector for Private Equity funds as investment opportunities exist and the industry is expected to grow due to macro and micro economic factors.

Attractiveness was confirmed by Cinven, one of the leading European Private Equity fund, that decided to invest in LABCO in August 2015 for an enterprise value of approximately €1.2 billion (deal value was about 8 times target's EBITDA) with the plan of buying up other competitors in the fragmented continental market.

The fund implemented its plan through the acquisition of Synlab, performed in October 2015 for about €1.9 billion. Cinven was able to enter the deal from the position of a highly synergistic strategical buyer after LABCO acquisition: deal's value resulted in about 9x EBITDA valuation.

SYNLAB was born in 2015 following the transformative merger of LABCO and Synlab to create the European champion in the diagnostics industry. The company is the Europe's leader in medical diagnostics service provider and, combining networks and extensive range of innovative diagnostic tests of both originating companies, offers its services in more than 30 countries on 4 continents, performing approximately 450 million tests per annum.

The group took advantage of benefits of scale available to operators in highly fragmented markets, having the opportunity to cut costs and achieve more efficient services, other than become the natural partner for innovation to bring new tests to market and to provide improved patient outcomes, including areas such as anatomic pathology, molecular biology, genetic testing and nuclear medicine. The combined business benefited from diversification geographically, by payor and by business model and was able to generate €1,5 million revenues in 2015.

Cinven's takeovers resulted in a 3 billion bet on the growth of the European medical labs market. The fund's forecasts are confirmed by the multiples paid, that are high if compared with the historical average multiples in Healthcare acquisitions: the firms acquired have been paid about 9 times their EBITDA and about €250 per employee.

High multiples reflect both the action of Cinven as a strategic buyer and the confidence of the fund's manager about a rosy future for the market.

Great growth potential is confirmed by the market's fundamentals analyzed above: demographics, technological innovation and a market that is still fragmented could result in a fertile ground for

SYNLAB leadership and further expansion. However, the role taken up by the public sector must be taken into account: the group operates in a market in which privates have no control over price and are then exposed to the risk of seeing cuts in tariffs that would result in a slowdown of the market's growth.

Balancing drivers of growth and risks that companies operating in the medical labs market have to deal with, considering the strong positioning achieved by SYNLAB after the merger and the significant opportunities available on the market, Cinven's bet is likely to get paid off.

2. Case study 2: The failed merger between AbbVie and Shire

AbbVie and Shire are two listed firms operating in the biotechnology pharmaceutical industry.

Over the last years, biotechnologically derived drugs have consistently gained share in the most used (and most sold) pharmaceutical products. Biotech products accounted for the 21% of the global market for prescription in drugs (\$714 billion in 2012), resulting in a volume of sales of about \$150 billion.

High competition among companies is one of the key elements driving the success in the industry: biotech firms have to deal with other research-based pharmaceuticals and biotechnology companies that discover, manufacture and market proprietary pharmaceutical products.

Regulation plays a key role in all the Healthcare industry segments, but it is absolutely determinant in the biotech industry framework. The clinical development, manufacturing and marketing of biotech pharmaceutical products is subject to governmental regulation in the US, Europe and other countries. The search for technological innovations in the field is another driver of companies' profitability, considering that the introduction of new products may let the company gain market share and consequently generate proceeds to invest in research and development.

M&A activity helped large biotech companies to set records they achieved and 2015 showed a variety of biopharma industry's trends: targeted divestitures, focused acquisitions and significant competition for biotech assets (driving the increase in valuations). Pharma companies used M&A as a quick tool to buy technology and scientific innovation from the market, most of the activity involved US-based firms and was characterized by strategic alliances.

3.1 AbbVie

“AbbVie may have been founded in 2013, but our roots run deep. In 2013, we became a separate company from Abbott, though we share a common legacy and strong prospects for future success”.¹⁰⁴

AbbVie is a research-based global biopharmaceutical company that “develops and markets advanced therapies that address some of the world’s most complex and serious diseases. AbbVie’s products are focused on treating conditions such as chronic autoimmune diseases in rheumatology, gastroenterology and dermatology; oncology; neurological disorder and metabolic diseases”.¹⁰⁵

In 2011, Abbott announced its decision to separate into two leading healthcare companies: Abbott, that would continue its operation as a diversified medical producer, and AbbVie. The separation eventually took place in 2013 as confirmed by Miles D. White, Abbott’s CEO: “We wish our colleagues at AbbVie continued success as they become part of a new, independent company that is already making a significant difference, focusing on highly specialized, market-leading therapies for some of the world’s most difficult-to-treat diseases.”¹⁰⁶ AbbVie started trading independently on the NYSE on the 2nd of January 2013.

AbbVie employs around 26000 people and is present in more than 170 countries, selling its products directly to wholesalers, distributors, healthcare facilities, government agencies and independent retailers.

AbbVie generated \$22,859 million revenues in 2015, growing by 14,52% compared to 2014, more than half are attributable to the worldwide sales of the product HUMIRA (around \$14 billion) and the post-acquisition revenues related to IMBRUVICA.

3.2 Shire

Shire is a fast-growing biotech company that focuses on developing and marketing innovative medicines for patients with rare diseases and other select condition. The company was founded in the Hampshire, United Kingdom, in 1986 “when a small team of entrepreneurs sought out a solution to address on a number of unmet medical needs. Within its first two years of operation, the company had launched a range of supplemental calcium products for patients seeking to treat or prevent

¹⁰⁴ “AbbVie: Our History”.

¹⁰⁵ “AbbVie: 2015 Annual Report, 10-K form”.

¹⁰⁶ Source: “Miles D. White, Chairman and CEO of Abbott, in a press release”. January 2013.

osteoporosis. Soon thereafter, innovative drug development programs were under way on behalf of patients facing such challenging conditions as Alzheimer's disease and end-stage renal failure".¹⁰⁷ Shire actually employs more than 5500 people and has offices in 50 countries, selling its product in more than 72 countries around the world. The company achieved a strong positioning, that would be enhanced following the acquisition of Baxalta, as market leader in the rare diseases' treatments market. Shire's revenues grew by 6,55% to \$6416,7 million in 2015, the growth has been both organic and acquisition-related (Shire completed a series of transactions including NPS, with sales of \$142 million).

3.3 The failed merger between AbbVie and Shire

M&A activity has been historically used by companies as a tool for expanding their businesses, buying technology from the market, weakening the competition in their industry and accelerating their growth. Other than those growth-related reasons, another driver that makes a company undertake a M&A exists, and it is linked to tax inversion benefits.

Tax inversion "is a piece of financial engineering that multinational companies use to reduce their tax bill. One company buys a rival based in a different country with a less onerous tax policy. It then reincorporates by shifting the address of its headquarters to the country with the lighter tax burden. In many cases the main business might remain in the original country but the firm simply holds some of its board meetings in the new jurisdiction".¹⁰⁸

US Government has made several attempts to prevent and discourage inverters, trying to reduce the tax benefit available to them. This was the case of the Government's intervention on tax policies in 2014, when AbbVie was planning to merge with Shire and relocate in the United Kingdom.

On the 18th of July, AbbVie offered \$55 billion to takeover Shire and avoid the 35% taxes on domestic earnings, partly financing the deal through hopscotch, one of the benefit of the tax inversion deals, that are loans that let companies access foreign cash without paying US taxes.

The offering resulted in a value of £52.48 a share, paid with a mix of cash and share in the new company: Shire's shareholders would receive £24.44 and 0.8960 new AbbVie's share. The price was 53% above the shares' closing price on the day before the official announcement.

The deal was intended to be more than a tax inversion deal, as confirmed by the AbbVie CEO Richard Gonzalez.

¹⁰⁷ "Shire: Our History".

¹⁰⁸ DAVIES R., *Pfizer-Allergan: what is a tax inversion deal and why do firms do them?*, *The Guardian*, April 2016.

Shire's Chairman, Susan Kilsby, confirmed the company's willingness in closing the deal, imagining a rosy future for the combined company. However, Shire's management was not as certain as AbbVie's about the closing in the case of the US government's intervention in regulation, so that a protection for Shire was conveyed and a 3% of the deal's value breakup fee (about \$1.6 billion) was included in the agreement as a reimbursement for efforts and merger-related costs.

The US Treasury Department eventually issued the notice aimed to make it harder for companies that set up their legal address abroad to avoid the US's high rate of income taxes, making the inversion deal less profitable.

Considering the change in US regulation, AbbVie's managers said that the new rule "introduced an unacceptable level of risk and uncertainty into takeover" and decided not to close the deal; since some of the expected financial benefits could not be achieved, the deal was no longer in the best interest of shareholders. AbbVie paid a \$1.64 billion breakup fee because of the failed merger effort.

The measure taken by the US Treasury will make the industry more genuine and competitive, trying to avoid companies' mergers led by financial engineering rather than growth perspectives, that could be seen as an upgrade. However, such measures, and all other measures aimed to discourage companies to take advantage of benefits offered abroad, in order not to be restrictive, should be followed by an attempt to make differences among developed countries as low as possible, letting companies operate in a truly competitive market.

Conclusions

It is commonly accepted that Mergers and Acquisitions have been playing a key role in companies' growth and goals' achievement, allowing firms to diversify their businesses, enter new market segments, innovate and enhance their technological capabilities and accelerate their growth rate by creating synergies and weakening the competition in their sector.

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A strategic buyer is not only interested in absolute return, but it profits also from synergies and increased efficiency, other than from weakening the competition in the sector. Therefore, a strategic buyer could be willing to pay more for a company, if compared to a financial buyer that is only interested in pursuing the return on the investment.

The second case study illustrates how it is possible for a firm to undertake a M&A process in order to take advantage of differences in countries' regulation, especially about taxes on earnings generated, and how a Government's measure may damage the expected profitability of a deal.

Tax inversion deals can be seen as a financial engineering tool that allows companies to reduce their tax bill by buying a rival based in a different country with a less onerous tax policy. It then reincorporates by shifting the address of its headquarters to the country with the lighter tax burden. Buyer will profit by reducing its tax burden and by accessing intra-company loans free from own-country taxes.

Bermuda, United Kingdom and Ireland have historically been the most attractive countries for companies looking for an inversion deal.

The case study shows how Government have always been active in fighting serial inverters, adopting measures aimed to make inversion deals less profitable for buyers.

The last action has been made by US Treasury that issued a notice aimed to prevent inverted companies from restructuring a foreign subsidiary in order to access the subsidiary's earnings tax-free. The notice impacted on the inversion deal's profitability, making involved companies abandon the deal.

Case studies' results show the effectiveness of a strategic deal made by merging two big players in a sector with a high growth potential and highlight the output of changes in regulation in the inversion deals framework.

Success of the strategic deal is the result of a careful consideration of the market's dynamics and target companies, it must be cleared that the case study shows the initial success of the deal, the real output should be confirmed by company's performance in coming years. However, balancing drivers of growth and risks that companies have to deal with, considering the strong positioning and the significant opportunities available on the market, the financial performances of the merged company are likely to grow.

Failure of the inversion deal is mainly attributable to the underestimation of the impact of a possible Government's intervention in the regulatory framework.

Management of the acquirer company confirmed the deal was not a tax inversion only, since the company was looking for a diversification of its products. However, the issuance of the notice led to a review of deal's profitability and eventually made companies drop off the deal, showing the mismatch between the forecasted and real impact of the change in regulation.

Summing up the results discovered in the research, it is possible to shape the future steps the European Healthcare industry could take.

The work showed that access to capital at low interest rates is one of the main driver of an increase in activities: credit recovered after 2008 crisis and the loose monetary policy is likely to continue in coming years, so that it would be easier for investors to spend cash pursuing profit.

The rate of innovation and digitalization in Healthcare trails in comparison to other industry, leading the rise of the Healthcare relevance among other sectors, moving forward the medicine and helping to identify the risk of certain diseases, allowing for the early detection of potential problems before the definitive diagnosis and eventually offering new and alternative treatments to the most difficult-to-cure diseases.

Brexit's effect on the industry must be taken into account since the UK vote for exit the EU put uncertainty in the market. However, a weakened Pound will make UK companies more attractive to foreign buyers, fueling the market with fresh capital.

Long term macro fundamentals are favorable to activity in the sector since the aging populations and chronic disease fuel demand in developed markets, as cost pressures continue across the world and as people in developing economies seek new or expanded access to healthcare.

Growth potential in the Healthcare sector is great and the sector has not a high sensitivity to the macroeconomic cycles and factors. However, investors should be aware of the risks associated with investing in high-growth industries, as they tend to form bubble and pop.