

M&A Report

Global Mergers and Acquisitions Reports and Analyses

November / December 2017

German M&A Index Suggests Reversal in Trend Regarding Number of M&A Transactions

After a strong start to the year 2017, the number of mergers and acquisitions (M&A) involving German firms has fallen. This trend is clearly discernible in the ZEW-ZEPHYR M&A Index, which reflects the number of M&A transactions conducted in Germany on a monthly basis. While back in January 2017, the index had reached 145 points – its highest level since January 2009 – by July, it had fallen to just 75 points. This seems to indicate that the continuing upward trend in mergers and acquisitions involving German firms has stalled. The index's twelve-month moving average also dropped to 87 points, its lowest level since October 2015. Furthermore, the average transaction volume for the current year is considerably lower than the average from previous years.

The biggest transaction that took place in the first six months of the year was the sale of the energy service provider SAG Group, which was bought off the Swedish financial investor EQT by the French company SPIE for 850 million euros. Despite the general cooling of the market, the wave of consolidations in the chemical sector has continued, with the Essen-based firm Evonik Industries acquiring the Hamburg-based cosmetics manu-

facturer Dr. Straetmans for just over 100 million euros. Perhaps the most curious acquisition of the first six months was that of the Berlin-based pharmaceutical company Pedanios by the Canadian cannabis producer Aurora Cannabis for just under 14 million euros. The Canadians are speculating on the EU legalising the use of cannabis in the near future and are hoping this purchase will give them a foothold on the European market.

After the period of strong economic growth in recent years, this cooling-off in M&A activities could be an early indicator that the economy as a whole is entering a saturation phase. As a result of big capital gains on stock markets worldwide, acquisition targets may be over-valued, which could make potential investors more hesitant when it comes to their buying decisions. Up until early September 2017, it was also not clear how the European Central Bank would decide on the purchase of government bonds. A more restrictive monetary policy from the ECB would lead to capital being withdrawn from the stock markets, lowering the price of potential acquisition targets and ultimately having a dampening effect on M&A activities.

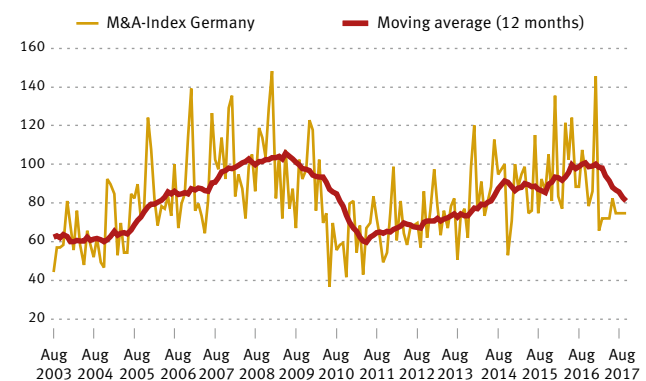
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The **ZEW-ZEPHYR M&A-Index** measures the number of M&A transactions completed in Germany each month. It considers only mergers and acquisitions by and with German companies. It does not differentiate between the country of origin of the buyer or partner. This means that both domestic and international buyer companies are considered, provided that the target companies are active in Germany. The M&A Report is a biyearly publication issued by ZEW



and Bureau van Dijk. It uses the Zephyr database to report current topics and developments in global mergers and acquisitions. The Zephyr database, which is updated on a daily basis, contains detailed information on over 1.6 million M&As, IPOs, and private equity transactions around the world.

ZEW-ZEPHYR M&A-INDEX GERMANY



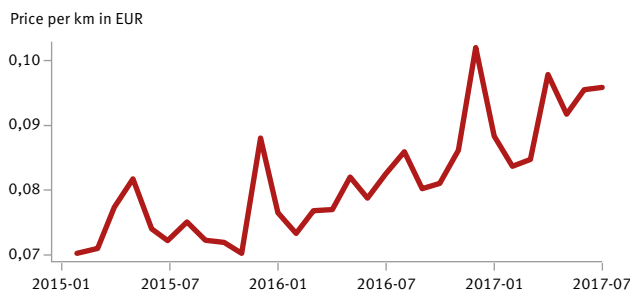
Source: Zephyr database, Bureau van Dijk, calculations by ZEW



Prices in the Interurban Bus Sector Increase After Takeover Wave

Almost five years after the liberalisation of the German interurban bus market, average prices have increased considerably following a wave of mergers, acquisitions and market exits. In July 2015, the average price per kilometre for routes within Germany when booking seven days in advance was 7.2 cents. By July 2017, the average price per kilometre had increased to 9.6 cents, which represents a 33 per cent increase in merely two years.

PRICE PER KILOMETRE OVER TIME (FOR ROUTES WITHIN GERMANY)



The graph shows the monthly average price per kilometre for routes within Germany when booking seven days in advance, for the period between February 2015 and July 2017. The calculations are based on all available routes on www.fernbusse.de. Source: Zephyr database, Bureau van Dijk, calculations by ZEW

Before the amendment of the German Passenger Transportation Act (Personenbeförderungsgesetz, PBefG) on 1 January 2013, regular interurban bus travel was limited to a small number of routes. Since the amendment, bus companies have been allowed to offer regular bus services on all routes of at least 50 kilometres. Soon after the liberalisation of the interurban bus market, a comprehensive network of routes with several providers and a growing number of passengers was established.

Early 2015 marked, however, the beginning of a consolidation phase, in which FlixBus established its position as the market leader. Today, more than 95 per cent of all routes are operated by FlixBus. The M&A transactions that allowed FlixBus to gain control

of the market were made possible by a legislative provision. Since the company did not reach the turnover threshold set out in paragraph 35 of the Act against Restraints of Competition, FlixBus was not subject to merger control by the German Federal Cartel Office. If FlixBus had surpassed this threshold, antitrust officials would have had to conduct an investigation into whether for example the rail transportation market should be considered a part of the same market. One argument against this classification is the vertical differentiation between the fast and expensive railway services and the cheaper but slower bus service providers.

A detailed analysis conducted by ZEW has shown that, even before market consolidation, routes operated by only one provider were more expensive than routes with more competitors. After the merger, prices for both monopolised and competitive routes increased to almost the same extent and reached a level that cannot be explained by additional costs. Instead, the price increases could indicate that FlixBus has emerged as the winner in a predatory competition and considers it unlikely that other bus service providers will be able to enter the market and compete on the same routes, at least in the short term. This would give FlixBus more leeway to increase prices. FlixBus has stated that it has been turning a profit in Germany since 2016 and expects its international operations to become profitable in 2017.

The market power of FlixBus is in part restricted by the Deutsche Bahn's special fare offers. For many consumers, travelling by car or car-sharing might also constitute an alternative to bus transport. According to Andreas Mundt, President of the German Federal Cartel Office, antitrust officials are keeping a close eye on FlixBus and its position as the only large provider operating on the German interurban bus market. In the event of misconduct on the part of any company with a dominant market position, the German Federal Cartel Office may intervene regardless of whether a merger is taking place or not.

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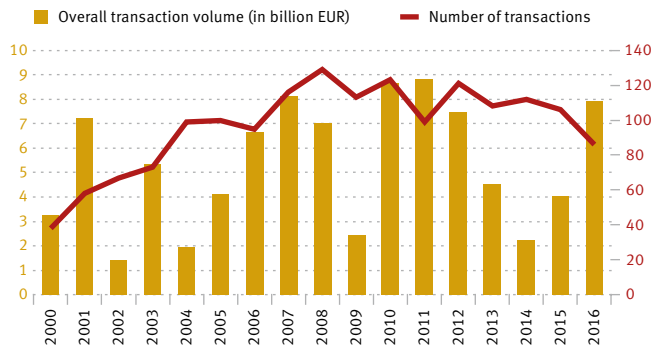
M&A Activity Involving Airlines on the Descent

Since the start of the new millennium, there were on average 97 M&A transactions involving airlines observed each year. Much like a typical aeroplane flight, this M&A activity made a slow but steady ascent from early 2000 onwards, before levelling out between the years of 2007 and 2015 with more than 100 transactions recorded per year. In the past year, however, there have only been 86 such transactions, suggesting a downward trend.

In recent years, mergers and acquisitions in the aviation sector have increasingly been attracting public interest, buoyed in particular by the recent insolvency of the airline Air Berlin. In the en-

ding bidding war, Lufthansa, as well as Easyjet and Condor, all expressed an interest in Air Berlin, though they only put in bids for parts of the insolvent airline. Having successfully acquired Air Berlin's subsidiaries Niki and LGW (for 210 million euros), Lufthansa is also involved in bidding for the insolvent Italian airline Alitalia. It is not only the airlines making the headlines; there have also been important developments involving manufacturers and suppliers in the aviation industry. For instance, United Technologies has struck an agreement to acquire avionics company Rockwell Collins for 30 billion dollars. As recently as April 2017,

NUMBER AND VOLUME OF GLOBAL M&A TRANSACTIONS IN THE AIRLINE SECTOR



Source: Zephyr database, Bureau van Dijk.

Rockwell Collins itself took over B/E Aerospace, a manufacturer of aircraft cabin interior products, in a six billion dollar deal. The consolidation among aircraft suppliers is a cause for concern particu-

larly for aircraft manufacturers Airbus and Boeing. The increasing bargaining power of suppliers will have an impact on airlines too.

With regard to transaction volumes, the information available does not provide a consistent picture. Since purchasing prices are in some cases kept secret, not all relevant data on transaction volumes is available. Over the past 17 years, the average value of transactions where the volume is known was 150 million euros. This number stands in stark contrast to the values of transactions at the upper end of the scale. At least 24 of the over 1,500 M&As recorded since the year 2000 ran to more than one billion dollars. The two largest transactions were the takeover of Trans World Airlines by American Airlines for 4.7 billion euros in 2001, and Alaska Air's acquisition of Virgin America for 3.8 billion euros in 2016. The largest M&A transactions involving German airlines were the takeover of Thomas Cook by KarstadtQuelle in 2006 (800 million euros) and Air Berlin's purchase of LTU in 2007 (340 million euros).

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Returns in the German Construction Sector Fuel M&A Activity

The German construction sector has been growing steadily since 2011, which is mainly due to a growing number of infrastructure projects and increasing residential construction. At the same time, figures published by the German Association of Savings Banks (Deutscher Sparkassen- und Giroverband, DSGV) indicate that profits on sales in the construction sector have been stagnating at around seven per cent for the past few years (see table).

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
4.7%	6.8%	5.0%	5.5%	5.8%	6.1%	6.6%	6.4%	6.7%	7.0%	6.9%

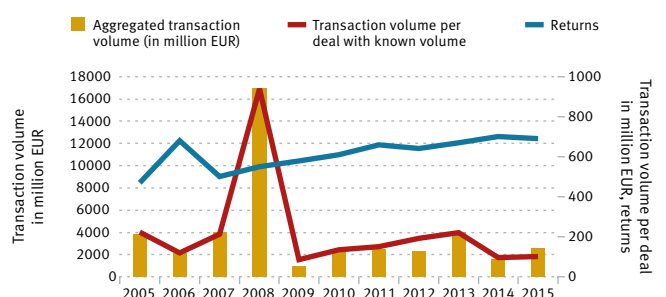
This development is also reflected in the intensity of M&A activity in the German construction sector. After the crisis period in 2008, which was characterised by high transaction volumes, the trend in returns in the construction sector developed in line with the transaction volume per deal. The drop in returns in 2012 as well as in 2007 was accompanied by a rise in transaction volumes in the following year.

The blue line in the graph represents the development of returns in the German construction sector. As displayed in the graph, trends in returns have two different effects on M&A transactions. On the one hand, moderate growth in returns leads to a moderate increase in transaction volumes – which serves as an indication for external company growth. On the other hand, decreasing trends in returns have led to erratic increases in transaction volumes. As a result of the drop in returns in 2007 (1.8 percentage points) and 2012 (0.2 percentage points), the

aggregate volume of M&A transactions climbed to record levels, reaching a level of 16 billion euros in 2008 and four billion euros in 2013. In 2014 and 2015, stagnation in returns had a dampening effect on transaction volumes. This analysis confirms observations that demand dynamics have a direct influence on mergers and acquisitions. This effect is particularly pronounced when economies are recovering from economic downturns. Accordingly, a significant increase in the interest rate level or a decline in economic expectations would further dampen M&A activities. In contrast, sharp falls in returns such as witnessed in 2015 might reverse the effect on transaction volumes and lead to a high level of market consolidation and the acquisition of firms with low liquidity.

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M&A TRANSACTIONS IN THE GERMAN CONSTRUCTION SECTOR



Source: Zephyr database, Bureau van Dijk, calculations by ZEW