



When Brussels hits the brakes on M&A

A case study on the failed acquisition of Haldex AB

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ABSTRACT

With an increasing number of mergers being subject to a European Commission's merger control investigation, the process becomes relevant for more and more companies engaged in M&A activities. Despite the importance to maintain healthy competition and an innovative business environment, the investigation comes along with significant direct and indirect costs for target and acquirer. In order to examine this topic, we performed a quantitative analysis of 1,635 mergers notified to the European Commission between 2013 and 2017. In addition, we conducted a case study on the failed merger between the Swedish brake manufacturer Haldex and its German competitor Knorr-Bremse. This transaction illustrates the difficulties arising in the course of an antitrust investigation and the divergent interests of the various stakeholders involved. We found that direct costs were mainly comprised of internal hours and external fees required to fulfill the authority's data requests. Indirect costs stemmed from the uncertainty for stakeholders as well as decreased strategic and operational flexibility. These indirect costs were increasing in the duration of the investigation and were mainly incurred by the target. Further, both analyses together indicated several weaknesses of the current merger control process. Despite the prescribed timeframes, especially complex investigations do often significantly exceed their theoretical time allowance. Furthermore, the pre-notification phase is not subject to any time limitation yet, thus increasing the costs and uncertainty for the target company. In combination with certain case-specific factors, the current antitrust process has the potential to significantly impede a merger, as shown in our case study.

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1 Introduction

On the 29th of June 2017 the board of the Swedish brake manufacturer Haldex publicly opposed a formerly recommended bid from the German brake manufacturer Knorr-Bremse ('KB'). This final offer, which had evolved from an intense bidding fight, valued Haldex at over 20x its earnings, far above any industry peers. So, why did the board decide to show resistance? The European Commission ('EC' or 'the Commission') had just signaled serious competition issues regarding six out of eight Haldex product areas in case of the intended acquisition. The EC merger control process and its preparation had already used up significant financial resources and management time during the past 10 months. Also, the unclear ownership situation was hurting Haldex's operations, thus putting its long-term prospects at risk. Considering another 6 months of even more extensive investigations and a high probability of deal failure, the board saw no other option but to intervene. Indeed, KB was unable to pursue the acquisition without board support and finally, Haldex's shareholders were left with shares in a weakened company instead of 125 Swedish crowns.

The general goal of the EC merger control is to prevent takeovers with negative effects on competition. Thereby, the policy aims to protect consumers from price increases or quality decreases, additionally promoting an innovative business environment. While these benefits exist without a doubt, the antitrust process also has some less favorable effects, especially on the merger parties. Given that the number of merger investigations has been steadily increasing since the financial crisis, the antitrust regulations and their side effects become relevant for more and more firms engaged in M&A activities. Still, there is little academic coverage of these effects as the data collection is cumbersome for larger data samples. Accordingly, we chose to focus our research on the specific case of Haldex and KB to investigate on and answer the following research questions:

Did the potential competitive effects of the Haldex merger justify an EC investigation?

How did the EC merger control process impact the Haldex merger as well as the merger parties?

Which regulatory or case specific factors did aggravate the merger process?

We find that the EC's competitive concerns leading to the investigation were substantiated. Further, our research indicates that both acquirer and target in the Haldex merger experienced substantial direct costs related to the merger review. Especially the target had to face significant difficulties and indirect costs caused by the uncertainty created during the antitrust process. As a major driver for this uncertainty we identified the unregulated pre-notification phase as well as occasionally substantial deviations from the defined investigation time schedule.

Our thesis serves three *purposes* that also are reflected in its *scope*. First, our thesis shall determine the impacts of the EC merger control investigation on the takeover of Haldex and the parties involved. Even though the Haldex case was also investigated by the U.S. authorities, the

EC procedure had significantly more decisive impact on the merger process and its outcome. Given the substantial differences between the European and the U.S. system, an in-depth coverage of both was not possible within the set frame of a master thesis. Accordingly, we decided to focus on the first one with limited comments on the latter one where appropriate. The second purpose of this thesis is to extend the case-specific view by analyzing the EC merger control process in general. This analysis focuses on the identification of regulatory features that can result in severe negative impacts on the merger parties. We would like to emphasize that our thesis does not aim at judging antitrust rules in general, since these are useful instruments for protecting customers and fostering innovation. Instead, we are elaborating on the rules and their application in a descriptive manner. Lastly, this thesis shall provide the Department of Finance at the Stockholm School of Economics with the basis for creating a case study as teaching material in the area of M&A. Accordingly, the information assembled for the case will in parts exceed the scope of our research topic.

In terms of *academic contribution*, we aim to expand the literature on the EC merger control process. While the effectiveness of the EC decisions to maintain competition has been addressed, the process itself has received less academic attention. The EC antitrust process is often labeled as burdensome, but to our knowledge no researcher has yet examined its potential effects on the merger parties in detail. We close this gap by discussing the effects along a real-world case. Regarding the direct process costs, we visualize and verify several conclusions from a PwC (2003) study on multijurisdictional merger reviews. Further, we did analyze EC investigation durations, as these tend to be a key driver for the costs and uncertainty faced by the merger parties. Here, we employ a more recent data sample than Heim et al. (2015), whose data ends in 2008. We cover cases up to the year 2017, including the tenure of the current Competition Commissioner. This is valuable since each Commissioner's regime may differ, e.g. regarding "investigation strictness". Finally, the Haldex case that we covered, features several interesting attributes: A target board recommending the lower of two offers, and later blocking the higher bidder against the vote of the shareholders. The first merger exceeding Sweden's legally set 9-month limit and leading to a change in regulations. All these aspects relate to the underlying complex antitrust investigation and make the Haldex case unique in Swedish and European M&A history, thereby offering valuable learning insights.

The further parts of this thesis are structured as follows. *Section 2* provides an overview on the regulatory framework of EC merger control as well as on the academic literature most relevant for our research topic. In *Section 3* we conduct a quantitative analysis on current merger control practice, focusing on decision outcomes and durations. *Section 4* explains the applied case study methodology and addresses potential limitations. *Section 5* establishes the industrial and legal background for the case, while *Section 6* presents the Haldex case itself. In *Section 7* we discuss the case in the context of our research questions, before *Section 8* concludes the thesis.

2 Regulation and Literature Review

For a basic understanding of the EC merger control process, we first provide an overview on the legal and institutional frame, based on currently prevailing regulations and law firm publications. Afterwards, we will discuss the existing academic literature most relevant to our research question.

2.1 The European Merger Regulation

2.1.1 Overview

The main purpose of antitrust regulations in merger contexts is to restrain takeovers, that would negatively affect competition by creating a dominant market player. Such takeovers are likely to result in price increases or choice and quality decreases for consumers. This is often accompanied by lower efforts for innovation, which can hurt an economy and a society as a whole (EC, 2018).

While U.S. antitrust laws targeting mergers have already been established by the Sherman Act in 1890 or the Clayton Act in 1914, on European level it took until 1990 to decide on a common merger control procedure. This initial regulation was supplemented with a simplified procedure in 2000 and completely reformed in 2004 through the European Council Regulation No 139/2004 ('ECMR'), which is the legislation currently in force (Heim et al., 2015).

In the European system, the Commission acts as an investigator, prosecutor and judge (Shi, 2017). The EC itself is structured into policy departments, "Directorates-General" ('DGs'), which are led by one of the 28 Commissioners. The department for competition ('DG COMP') is headed by Margrethe Vestager since 2014, who has shown a "bloody-minded" attitude, e.g. when imposing record fines on U.S. tech giants (The Economist, 2017). Within DG COMP, the Deputy Director-General, since 2014 Carles Esteve Mosso, is the main responsible for mergers. Among others, he allocates the cases to expert teams from different industry groups in the department (EC, 2018 II).

In the following, we will explain which circumstances require to conduct an EC merger investigation and how such an investigation process is structured. Specific legal details go beyond our research scope and can therefore be found in the referenced legislation or legal publications.

2.1.2 Applicability of the European Merger Regulation

A transaction generally falls under the scope of a potential EC investigation if it is classified as a "concentration" and has a "EU dimension" (ECMR, 1.1). *Concentration* is given in the case of mergers of at least two previously independent undertakings. The *concentration* concept also includes alternative acquisitions of control, i.e. decisive influence over an undertaking (ECMR, 3.1).

The requirement of *EU dimension* ensures that the EC only investigates mergers of companies with substantial size and significant presence in several EU countries. If the merging parties show high sales in the EU which are concentrated in only one country, the merger is typically

investigated by the respective national competition authority ('NCA') of this country. However, there are possibilities for referral from EC to NCA or the other way around (ECMR, 4; 9; 22). A main advantage of an investigation on EU level is that merger parties can avoid parallel processes with several NCAs. Instead the EC acts as a "one-stop shop", which reduces the workload and complexity for merger parties and national authorities (Slaughter and May, 2018). *EU dimension* is satisfied if either the '*original*' or the '*alternative*' turnover threshold test is passed.

The *original test* imposes three requirements: (1) The global combined turnover of the merging parties must be above EUR 5Bn. (2) Each of the merging companies must exceed a turnover of EUR 250M in the EU. (3) Both firms do not have more than 2/3 of their individual EU turnovers in on and the same country (ECMR, 1.2).

If requirement (1) or (2) of the *original test* are not met, the *alternative test* can be applied. This test lowers the thresholds for the conditions to (A1) EUR 2.5Bn and (A2) EUR 100M respectively. The last threshold (A3) is unchanged. However, the alternative test adds two additional criteria: There must be at least three EU countries where for each country alone (A4) the companies achieve a combined turnover of over EUR 100M and also (A5) an individual turnover of over EUR 25M (ECMR, 1.3). An illustration of the criteria for both tests can be found in *Appendix 2*.

Several points must be considered when assessing the firms' turnovers. First, the revenues must be calculated for all products or services, not just the ones that may raise competition concerns. If only a part of a firm is acquired, only the part's attributable turnover should be included (ECMR, 5.2). Further, only the turnover of the previous financial year should be used. Lastly, turnovers are assigned to the location of the customer generating the respective sales (ECMR, 5.1).

2.1.3 European Merger Control Investigation Process

If a merger meets the applicability requirements above, it has to be notified to the EC and approved before the actual merger implementation. The notification usually can only be filed after a public bid, the finalization of a merger agreement or the acquisition of controlling interest (ECMR, 4.1). However, ECMR does not set a notification deadline linked to any of these events. One of the intentions behind this unregulated pre-notification phase is to allow for so-called '*pre-notification contacts*' between the EC and the merger parties. These discussions are neither mandatory nor regulated, however strongly recommended and outlined in the EC's best practices. In general, the contacts give the Commission an overview on the intended merger. In exchange, the EC can provide information on special concern areas or feedback on notification drafts. As the extent of the *pre-notification contacts* is often dependent on the complexity of the merger case, the duration can vary between two weeks and several months (Slaughter and May, 2018).

To actually start the required merger control investigation, the parties have to jointly file the notification, in the specified format '*Form CO*' (ECMR, 4.3). The *Form CO* requires information

on “the parties, the transaction, and the relevant markets as well as contact details for customers, competitors, trade associations and potentially suppliers, whom the commission will consult as part of their investigation” (Slaughter and May, 2018).

For mergers that are unlikely to have significant negative effects on competition, the EC offers a *simplified procedure* with less extensive reporting requirements (*‘Short Form CO’*) and faster processing. To qualify for this simplification, the combined market shares must be below 20% for horizontal and below 30% for vertical business relationships (EC, 2018 III). This applies to approximately half of the notified cases (EC Statistics, 2018).

If a simplified procedure is not applicable, the EC initiates the *‘Phase I’* of a full investigation. Its time plan is outlined in detail. After the notification, the Commission has to investigate and decide on the case within 25 working days, excluding weekends and the approximately 17 to 18 official EU holidays (ECMR, 10.1). During the *Phase I*, the Commission usually posts requests for information (*‘RFIs’*) to the companies as well as to relevant third parties, e.g. competitors or customers (Slaughter & May, 2018). Close to the end of the *Phase I*, the EC usually updates the parties on the likely results in a “state-of-play meeting”. To dispel the EC’s potential concerns, the merger parties can suggest *‘commitments’* or *‘remedies’*. This suggestion increases the maximum *Phase I* duration to 35 working days. The *commitments* typically include divestments of business parts or measures for a competitive future business conduct. The EC then assesses the viability and effect of the *remedies*, also incorporating the opinions of the affected third parties (EC, 2018 III).

At the end of *Phase I*, three potential decision outcomes exist: (1) The merger receives unconditional clearance (ECMR, 6.1b). This happens in about 90% of cases (EC Statistics, 2018). (2) The merger receives clearance subject to the offered remedies (ECMR, 6.1b). (3) The merger “raises serious doubts as to its compatibility with the common market”. This requires an in-depth investigation, the *Phase II* (ECMR, 6.1c). A prohibition of the merger after *Phase I* is not possible.

Phase II again follows a defined schedule. Following the *Phase I* decision, the EC has 90 working days to reach a final decision. If the merging parties offer commitments later than during the first 55 working days of *Phase II*, this gets prolonged by 15 working days. Further, the EC can extend *Phase II* by another 20 working days. This may happen for complex cases and requires consent from the merger parties (ECMR, 10.3). Hence, the maximum duration of a *Phase II* can be up to 125 working days. The long duration of *Phase II* compared to *Phase I* allows for a thorough screening of the merger. Among others, this includes extensive information request, market tests, oral hearings and state-of-play meetings with the merger parties. Accordingly, *Phase II* requires much more effort from the concerned companies than *Phase I* (Slaughter and May, 2018).

The total procedure with both phases can amount to up to 160 working days as illustrated in *Table 1* below. Considering weekends and EC holidays, the merger control process can take up

to 8 months. Still, this is not the limit. Whenever the EC finds that the requested data is not provided in a comprehensive manner, it can “stop the clock” until the issue is resolved. This can further delay the final decision (Slaughter & May, 2018).

Working days	Phase I		Phase II			"Stop-the-clock"
	25	+10	90	+15	+20	+?
	max. 35		max. 125			

Table 1: EC Merger Control time plan [Source: Own illustration]

Phase II ends with one of three potential decision outcomes: (1) Unconditional merger clearance (ECMR, 8.1), (2) merger clearance subject to commitments (ECMR, 8.2), or (3) prohibition of the merger (ECMR, 8.3). In some cases, the parties anticipate a negative outcome and withdraw their merger clearance application prior to the final decision (Slaughter & May, 2018).

Commitments that are part of the EC’s decision are binding for the merger parties. Compliance is monitored diligently and often includes the establishment of a ‘monitoring trustee’. Moreover, it is also possible that the establishment of a ‘divestiture trustee’ is required. If the parties are not able to pursue the committed divestments in the specified time, the divestment trustee has the authority to sell the divestments without setting a minimum price. Lastly, a breach of agreed *commitments* can lead to a fine of up to 10% of sales.

2.2 Literature Review

Against the role model of literature examining U.S. antitrust policy (see e.g. Elzinga (1969), Stillman (1983), White (1993) or Mueller (1996)), literature focusing on European antitrust policy has just evolved recently. Intuitively, this can be explained with the age differences of the policies mentioned in *Section 2.1.1*. Despite its relatively young age, we could identify a broad variety of research on EC merger control conducted by independent authors as well as by the EC itself. However, for each research focus only a small number of papers has been published, thus limiting the possibility to consult different viewpoints on each topic. Based on the scope of our thesis, we will geographically limit our literature review to studies focusing on the EC merger control policies. Here, the existing literature can be divided into two groups. The first group is examining the *external effectiveness* of the EC antitrust regulations in protecting competition, while the second group is focusing on the *internal processes*, their underlying influencing factors and the impact on the parties involved.

As the *external effectiveness* is not at the core of our research topic, this first group of literature will be covered more briefly. Here, Duso et al. (2007) are investigating on the *quality* and *correctness* of the EC’s decisions. The authors use a sample of 167 mergers notified between 1990 and 2002 and stock market reactions in order to evaluate whether the respective decision was successful in protecting consumer surplus. The authors conclude that instead of solely protecting effective competition, the EC’s decisions were affected by political factors. Other studies in this area are

evaluating the *impact of merger review outcomes and regulations* on market prices, competitor's stock prices and profits as well as on the competitive intensity. As exemplary papers we identified works of Björnerstedt and Verboven (2016) or Brady and Feinberg (2000). Focusing the analysis on the impact of EC decisions involving remedies, Angelov et al. (2012), Friberg and Romahn (2015), Kartner (2016) as well as the EC (2005) itself are contributing to the existing literature.

Continuing with the second group of publications, which is covering the *internal processes*, we identified three further subgroups of literature. First, one subgroup of publications consists of papers examining the *efficiency* and the *factors affecting the outcome* as well as the *duration* of an EC merger control investigation. Here, the respective authors are especially emphasizing the significance for parties involved in merger reviews. As a major contribution in this field, Heim et al. (2015) are analyzing the working days required in each phase of an EC investigation before and after the 2004 antitrust law reform. In particular, they are focusing on the factors impacting the duration of an investigation. Hereby, they are distinguishing between authority-related and case-related factors. The authors are conducting an ordinary least squares (OLS) regression with the dependent variable being the duration of Phase I and Phase II investigations between 1999 and 2008. After removing extreme outliers as well as withdrawn mergers, the authors include 2953 Phase I and 92 Phase II investigations into their analysis. Heim et al. conclude that the duration of both phases did increase following the 2004 reform of the European merger control legislation. Further, the authors observed that especially the duration of Phase II investigations is driven by authority-related factors like internal experiences and skills of the EC regarding the relevant industries as well as by the number of affected markets.

To examine the *factors affecting the outcome* of a merger investigation, Bergman et al. (2005) are conducting an analysis on 96 mergers that have been reviewed before 2002. Their analysis suggests that a Phase II investigation is more likely with higher merger party market shares or the presence of high market entry barriers. According to them, such a setting also increases the probability of a prohibition. However, Bergman et al. conclude that the political environment and the origin of the firms involved does not have a significant impact on the investigation outcome.

The second subgroup adds a monetary perspective to the analysis of merger investigation durations. Here, a study conducted by PwC (2003) examines the *costs incurred by parties involved* in multijurisdictional merger reviews. As part of their methodology, the authors conducted a survey with 51 companies involved in mergers between 2000 and mid-2002. While the authors are confirming the existence of delays in multijurisdictional merger investigations, they are tracing this back to the requirement to complete on average eight filings per merger case. They conclude, that costs arising from a merger review are comprised of legal fees (65%), filing fees (19%) and fees for

other consultants (14%) and may exceed EUR 10M when an in-depth investigation is necessary. Further, the authors emphasize the fact that especially the filing costs may be eight times as expensive as soon as the deal triggers anti-competitive concerns. Also, internal costs in the form of employee time spent may increase from 28 weeks to 120 weeks, if a Phase II investigation is announced, thereby increasing the internal review costs by a factor between eight and ten.

Lastly, the third subgroup is evaluating the *strategic impact* of the EC antitrust decisions on firms. Clougherty et al. (2015) are evaluating to which extent past antitrust decisions did cause deterrence effects in later years. The authors use a sample of merger reviews carried out between 1990 and 2009 for their analysis. They conclude that Phase I remedy decisions lead to significant deterrence and reduce the number of notified mergers in subsequent years. More precisely, they find that Phase I remedies do especially reduce the notification of anti-competitive mergers in high-concentration industries. In contrast, Phase II remedies or prohibitions seem to not result in less merger activity in later years. Targeting another area of influence on firms, Ormosi (2012) is evaluating to which extent the practice in EC merger investigations may affect the firms' strategies during the EC merger review. He observed that firms are incentivized to strategically delay Phase I of a merger investigation in order to avoid a lengthy and costly in-depth investigation.

In this paper, we aim to evaluate to which extent the practice observable in EC merger investigation may impact mergers. By using a more recent sample of mergers than previous researchers (see e.g. Heim et al., 2015) as well as a different research goal, we aim to extend on different areas of the second set of literature. We investigate how the direct and indirect costs incurred by the merging parties may result in burdens for the target as well as for the acquirer. In order to further support our analysis, we are going to present a case study on the failed merger between Haldex and Knorr-Bremse. This allows to visualize and to verify the study on merger review costs which has been conducted by PwC (2003). Moreover, we target to examine to which extent indirect costs based on uncertainties arising from merger investigations may impact the merger. However, our analysis differs from the research conducted by Ormosi (2012). Instead, we hope to identify current inefficiencies of the EC antitrust procedures, leading to delays and bureaucratic efforts, that may impede the merger and result in lower generatable synergies for otherwise value-adding mergers.

3 Quantitative Analysis of Practices in Merger Investigation Procedures

Among others, the purpose of this thesis is to provide a better understanding for the EC merger control process. The theoretical frame for the process, i.e. the relevant regulations of the ECMR, were presented in *Section 2.1*. However, it is also important to observe how the merger control procedures are conducted in practice. Therefore, we pursued a quantitative analysis of past EC merger investigation cases. While the results themselves provide interesting insights, they also support the later discussion of the real-world Haldex case (*Section 7*).

As explained by Heim et al. (2015), a merger investigation involves high direct as well as indirect costs which are increasing in the number of *working days* required for the investigation. In this context, direct costs arise due to fees charged by external advisors involved and internal salaries spent. Additionally, indirect costs, based on uncertainties for employees and business partners, are heavily increasing in the length of a review process (Heim et al., 2015).

Therefore, we assume a firm's management and board to anticipate and reflect on tendencies observable in merger proceedings that have been carried out before their own merger attempt. The rationale behind this is to estimate the potential time and costs that could be incurred in the course of a merger review and to adjust the own strategy for interacting with the authorities. For example, a high probability of failure despite a long *Phase II* investigation may incentivize the parties to withdraw their notification following the corresponding *Phase I* outcome. Further, deviations from EC timelines could result in abnormally long and costly merger processes, thereby significantly increasing the costs and uncertainty incurred by both target and acquirer. As a result, this limits firms' ability to assess their financial and personnel capacity to pursue a merger. Overall this argumentation demonstrates the practical relevance of our following quantitative analysis.

3.1 Data and Methodological Approach

For performing our quantitative analysis, we used the merger case database provided by the EC. Among others, this source provides the case number, the involved parties as well as the economic activity concerned. Further, all relevant decisions dates together with a corresponding *ECMR* article are stated (*see Appendix 3 for the database interface*). Based on the article, the respective decision made in each case can be obtained. Further insight is provided through associated press releases.

As this database is not available in any downloadable format and has to be manually transferred, we had to narrow the scope of included cases. We decided to incorporate all mergers that have been notified between the 1st of January 2013 and the 31st of December 2017 in our analysis. The reasoning behind the focus on this timeframe was threefold. The first rationale is of general nature while the second and third aspect originate from our later analysis that utilizes the Haldex

takeover case (2016 to 2017). First, a sufficiently *large number* of cases needs to be examined in order to allow for a representative and unbiased assessment of merger practice. Second, it was important to incorporate a characteristic sample of merger investigations *preceding* the Haldex takeover as lengthy and expensive earlier reviews could have a deterring effect on both merger parties. Third, we were interested in evaluating common patterns of merger investigations that have been notified during the *same period* as the exemplifying case.

In total this resulted in 1,635 cases that have been investigated on European level during the five years selected. For these cases, we analyzed (1) the decision outcome, (2) whether an in-depth Phase II investigation was pursued and (3) relevant key statistics for Phase I and Phase II durations. We decided to incorporate withdrawn cases as they potentially indicate high remedy requirements by the EC or an imminent prohibition. In total, we identified 9 withdrawals during Phase I and 6 withdrawals during Phase II. However, these cases do not affect the statistics on investigation duration because no specific number of working days has been assigned to the respective discontinued phase.

3.2 Results

For Phase I, out of the 1,635 notified mergers, 2 (0.1%) mergers have been out of scope of ECMR (*Article 6.1a*). The majority of mergers, 1,585 (96.9%), has been deemed to be compatible with or without commitments (*Article 6.1b*). A differentiation within this group is unfortunately not possible based on the published ECMR article. Besides that, an in-depth Phase II investigation (*Article 6.1c*) has been decided for 39 (2.4%) mergers. 9 (0.6%) merger notifications have been withdrawn by any party.

The average working days considering all possible scenarios did amount to 21.0 days. This key parameter is strongly influenced downwards by the cases with a *simplified procedure*, which usually ends in a faster approval (*Article 6.1b*). On the other hand, the average Phase I working days for cases that later required a Phase II investigation (*Article 6.1c*) are significantly higher with 29.0 days.

However, the maximum required working days show a reverse picture. For *Article 6.1b* decisions, the maximum equaled 77 working days. In contrast, the maximum working days required for *Article 6.1c* cases did amount to 35. It is also notable that the 77 working days largely exceed the extended maximum allowance of 35 working days for cases with commitments.

In terms of working days ranges, 1,516 (92.7%) of cases did require 25 working days or less for receiving their Phase I decision. Further, 103 (6.3%) cases used the additional 10-day allowance. Besides that, 7 (0.4%) cases were exceeding the maximum of 35 working days, with a peak at 77 working days. For the 9 cases that have been withdrawn, no decision linked to any article has been made. Therefore, there is no decision date and we cannot consider these investigations for the working day ranges. The results for Phase I are summarized in *Table 2* below.

Key statistic	Phase I				
	Total	Article 6.1a - out of scope	Article 6.1b - Approval	Article 6.1c - Phase II	Withdrawals
# of cases by decision	1635	2	1585	39	9
% distribution of decisions per phase	100.0%	0.1%	96.9%	2.4%	0.6%
Average working days	21.0	25.0	20.8	29.0	n/a
Median working days	19	25	19	25	n/a
Minimum working days	0	25	0	24	n/a
Maximum working days	77	25	77	35	n/a
# of cases per days range: 0-25	1516	2	1492	22	n/a
# of cases per days range: 26-35	103	0	86	17	n/a
# of cases per days range: >35	7	0	7	0	n/a

Table 2: Summary of EC merger case analysis for Phase I [Source: Own analysis based on data transferred from EC case database]

In total, 39 mergers were decided to undergo an in-depth Phase II investigation. Out of these, 7 (17.9%) were decided to be compatible (*Article 8.1*). Besides that, 23 (59.0%) of the notified mergers were compatible following commitments to be made to the proposed transaction (*Article 8.2*). Only 3 (7.7%) mergers have been prohibited (*Article 8.3*) during the five years in scope of our analysis. For no merger it has been required to restore the effective competition (*Article 8.4*). As mentioned previously, 6 (15.4%) mergers have been withdrawn by the firms in Phase II.

The average working days for Phase II investigations equaled 114.2. For *Article 8.1* decisions this number was lower and did amount to 107.4. When the transaction was compatible with commitments under *Article 8.2*, 115.3 working days were required on average. Lastly, it took the European Commission the longest with 121.7 working days on average to prohibit a transaction during Phase II. These numbers clearly show that on average, the European Commission did require significant extensions beyond the basic allowance of 90 days for solving a Phase II investigation, independent from the final decision outcome.

When analyzing the maximum working days, the picture differs. Mergers that were compatible with commitments took the longest with 153 working days. When compatible without commitments, the maximum required working days equaled 147. Despite their relatively high average, prohibited mergers had a maximum of 124 working days to come to a decision.

For the number of cases that have been allocated to the working day ranges, only the 33 not withdrawn mergers were considered. We found that 4 (12.1%) of cases were solved within the basic allowance of 90 working days. 11 (33.3%) cases were decided within the first 15-day extension. Another 11 (33.3%) cases, finished the Phase II investigation between working day 106 and day 125, requiring the second extension by 20 days. And 7 (21.2%) of the mergers actually exceeded the 125 working days after both extensions, with a maximum of 153 working days. The results for Phase II are summarized in *Table 3* below.

Key statistic	Phase II				
	Total	Article 8.1 - Approval	Article 8.2 - Commitments	Article 8.3 - Prohibition	Withdrawals
# of cases by decision	39	7	23	3	6
% distribution of decisions per phase	100.0%	17.9%	59.0%	7.7%	15.4%
Average working days	114.2	107.4	115.3	121.7	n/a
Median working days	116	105	119	122	n/a
Minimum working days	80	89	80	119	n/a
Maximum working days	153	147	153	124	n/a
# of cases per days range: 0-90	4	1	3	0	n/a
# of cases per days range: 91-105	11	3	8	0	n/a
# of cases per days range: 106-125	11	2	6	3	n/a
# of cases per days range: >125	7	1	6	0	n/a

Table 3: Summary of EC merger case analysis for Phase II [Source: Own analysis based on data transferred from EC case database]

3.3 Interpretation and Implications of Findings

In total, our analysis suggests that for Phase I and especially for Phase II investigations, the EC exceeds the theoretical time allowance in a significant amount of cases. For Phase I of the analyzed EC investigations, we observed that the maximum duration required equaled 77 working days. Since this extraordinary Phase I duration has been identified for a case that has been cleared under *Article 6.1b*, a maximum working days allowance of 35 days applied there. Accordingly, the limit has been exceeded by 42 working days. In part, this might be explained with the occasionally lengthy negotiation of adjustments and commitments to be made by the involved firms, if they want to achieve the clearance after Phase I (*Article 6.1b*). Regarding Phase II, the EC required substantially more time than initially permitted to decide the merger by exceeding 90 working days in more than 87% of cases. Also, in 20.6% of analyzed mergers, more than 125 working days were necessary, thus exceeding the Phase II allowance including all possible extensions.

Here, it is interesting to see that the average working days required did significantly increase compared to the study carried out by Heim et al. (2015) which incorporates EC merger investigations between 1999 and 2008. The authors identified that the average Phase II working days increased from 80.0 before to 91.6 after the 2004 reform. The further duration increase, identified by us, could have several potential explanations. For instance, a lower ratio of EC Merger control staff to the number of notified cases. As the number of notified cases increased since the financial crisis, the staff number should have been increased similarly to avoid investigation delays. Another explanation could be a stricter policy enforced by the current Competition Commissioner fostering more extensive investigations.

Given the fact that time consumption and costs incurred are especially high during Phase II and are increasing in the number of working days required, this pattern could discourage firms to pursue a merger that has been decided to require a Phase II investigation. As explained by Heim et al. (2015), especially the indirect costs resulting from significant uncertainty involved are increasing in the duration of the merger process. It has to be considered that an ongoing merger investigation requires the firms involved to continuously employ internal resources as well as external advisors

for preparing documentation required by the EC. Furthermore, Haldex's chairman Jörgen Durban emphasized that especially the reduced operational flexibility results in foregone business opportunities. This is particularly painful when the merger does not get its final approval. As soon as a certain duration of an investigation is reached, the high costs of the acquisition have the potential to significantly offset the desired synergies from the merger.

In addition to the high costs of a Phase II investigation, the chance of a prohibition in Phase II is still considerable with an empirical share of 7.7% out of all cases that got forwarded to Phase II. This risk may further lower the willingness to continue with a merger following an *Article 6.1c* decision. On the basis of the investigation data used, this argument can be supported with the fact that 15.4% of mergers have been withdrawn during Phase II. Potential explanations could either be that the firms' management teams did not expect the merger to succeed or that the synergies were too low to compensate for the high costs of the expected time-consuming merger investigation. Additionally, only 2.4% of notified mergers were decided to require an in-depth investigation at all. Therefore, parties are likely to perceive a notified merger that has been decided according to *Article 6.1c* as an indicator for being less likely to succeed without any substantial monetary damage.

Another important observation is that 17.9% of cases have been decided to be compatible without commitments during Phase II. This indicates unnecessary high process costs for a merger that did finally not raise any concerns for existing competition.

Further aggravating the time consumed during a merger investigation, the Haldex CEO emphasized that especially the *pre-notification phase* may hurt the target as well as the acquirer. However, based on the data provided by the EC database, this time is not measurable since the EC does not actively regulate on the time allowance between the initial bid and the EC antitrust filing. This can be seen as a limitation of our quantitative analysis on investigation durations. Given the fact that strategic flexibility is also significantly reduced before the filing with the EC, the factor does still need to be considered.

4 Case Study Methodology

Considering our research questions addressing the EC merger control procedure, we decided to incorporate a case study in our thesis. This format shall help to illustrate the complex concepts and interrelations, which are often subject to case specific details. The case study is mainly based on company publications, articles from reputable newspapers and personal interviews that we conducted with carefully selected and valuable counterparts. In the following, we are going to further explain our methodology, which significantly supported the understanding and examination of the EC merger control procedure.

4.1 Research Design and Data Collection

Based on the importance to not only understand the theoretical requirements and processes involved in an EC merger investigation, but also the underlying interests of the parties and the real forces involved, we chose to adopt a *case study methodology* for our thesis. This approach is widely discussed and recommended by a broad range of researchers. As emphasized by Yin (2014), “case studies are the preferred strategy (...) when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context”. Further, he mentions the common application of case study approaches in various research-oriented areas, including psychology, economics as well as political science. In addition, Dubois and Gadde (2002) emphasize that “case studies provide unique means of developing theory by utilizing in-depth insights of empirical phenomena and their contexts”. Hereby, the authors introduce the method of *systematic combining*, which describes the ongoing interaction and alignment between theory, framework, empirical environment and the case itself. According to Glaser (1978), such an approach allows for the fit between theory and reality without forcing the empirical observations to fit into already existing frameworks.

Dubois and Gadde (2002) explain that further practical dimensions, applications and interdependencies of a theoretical concept can be revealed through incorporating a multitude of data sources. Here, they distinguish between *passive data* which can be identified by pure research on existing sources and *active data* that needs to be discovered or created through active involvement of the researcher. The ongoing addition of new, especially active data causes the continuous shift of the research direction and may trigger the researcher to think about other theories and sources, which could enhance his work. For instance, interviews are an appropriate tool to complement written sources. By providing internal insights that are not presented in published sources, the exploration of concepts beyond the ones observed in the course of empirical analysis can be enabled. Yin (2014) supports this view by stating that the use of different sources may allow for the examination and coverage of a more extensive variety of psychological, behavioral or external

factors and considerations. According to him, this also enhances the validity and reliability of the results presented.

The above-stated studies and recommendations supported our choice to conduct a case study for answering our research question. We opted for an examination of the failed acquisition of Swedish Haldex AB by German Knorr-Bremse AG. The main reasons for this choice were the significant coverage of our research question and the unique structure and setup of this case. In addition, the case is set between 2016 and 2017, and therefore finished but very recent at the same time. Besides the pure analysis of written press releases, financial reports, stock market data and journalistic coverage (*passive data*), we aimed to enrich our results by conducting in-person interviews with relevant counterparts. In order to enhance the value and exclusivity of the information and to create the so-called *active data*, we conducted interviews with three interviewees that were actively involved in the Haldex case. When screening for potential interviewees, we incorporated dimensions like the knowledge, process involvement and the availability. As a consequence, we held interviews with three Haldex representatives: The CEO, the Chairman of the Board of Directors and the Head of M&A. Due to limited availability and existing confidentiality agreements, it was not possible to conduct interviews with Knorr-Bremse representatives, lawyers or investment banks involved. However, considering the goal of the interviews to gain a deeper insight in difficulties arising from existing EC procedures, we assess the extensive interviews with Haldex representatives to be sufficiently informative. Still, we acknowledge that interviewing only one party might potentially lead to a bias for “the Haldex view”. To avoid this bias, we carefully assessed the statements by Haldex representatives and evaluated them against official information from other parties and especially from independent sources. Our main case sources, including the interview partners, are listed in *Table 4* below.

Source	Description	Case involvement
Haldex AB	Official press releases and annual reports	involved
Knorr-Bremse AG	Official press releases and annual reports	involved
ZF Friedrichshafen AG	Official press releases and annual reports	involved
SAF-Holland S.A.	Official press releases and annual reports	involved
Reuters	Reputable international news agency	independent
manager magazin	Reputable German business magazine	independent
WirtschaftsWoche	Reputable German business magazine	independent
Jörgen Durban	Chairman of the Board, Haldex AB (Interview)	involved
Ake Bengtsson	CEO, Haldex AB (Interview)	involved
Fredrik Fogelklou	Head of M&A, Haldex AB (Interview)	involved

Table 4: Main case sources [Source: Own compilation]

For us, it was important to hold the meetings in person to enable a more open and developing conversation. Therefore, we met the chairman of Haldex in Stockholm and traveled to the Haldex headquarters in Landskrona for gaining thorough insights. While the interview in Stockholm did

take about one and a half hours, we were able to spend an entire day in the Haldex headquarters. In addition to the interviews we conducted, we were provided with an enriching company presentation. In order to get their most accurate and reliable image of the case, we chose to meet the interviewees as early as possible during our working process, thereby minimizing the lapsed time since the case happenings. Furthermore, we decided to have a prepared set of questions to be covered, while still allowing for a flexible development of the interview. We were convinced that both aspects together would create the benefits of *systematic combining* with its continuous realignment as introduced by Dubois and Gadde (2002). Following the interviews, we made sure to summarize and incorporate the information revealed into our case and analysis within 24 hours. This made it possible for us to use the gathered information in the most reliable and precise way. Finally, we combined the *active data* with the *passive data* from by relevant literature as well as company and press releases to present the most accurate picture. This inclusion of multiple perspectives on the case made it possible for us to minimize potential biases and to objectively answer our research question.

4.2 Research Quality

When deciding on a methodology for the purpose of our thesis, we identified the case study technique as suitable. However, we did not only observe studies presenting the method's advantages. Especially historically, case studies got criticized for being too case-specific, thereby not acting as a generalizable research approach. In addition, the results of some case studies were influenced by external factors instead of providing objective conclusions (Yin, 2014). However, over time the case study approach got increasingly accepted among researchers. For example, Weick (1979) states that researchers should more and more link their results to specific situations while he blamed case studies for their lack in universal value in the first edition of his book (Weick, 1969).

Nevertheless, Yin (2014) highlights that the significance of a case study depends on its design and execution. In order to create results, which lead to analytic generalization, he states that the quality of the case study as an empirical social research method has to be tested. Following the role model of Kidder et al. (1986), he presents four tests that are suitable for testing the mentioned methodological quality. Below, the four testing areas *construct validity*, *internal validity*, *external validity* and *reliability* will be explained and their fulfillment in the context of our case study will be assessed.

Construct validity relates to the requirement that the measures, which are used to perform an experiment, actually test the construct which is supposed to be tested (Drost, 2011). This means that the theoretically created causal relationship between cause and effect does have the potential to represent the real-world concept. As explained by Yin (2014), past case studies have been criticized for not fulfilling construct validity given the fact that the researchers obtained active and passive data with a subjective hypothesis in mind. According to him, this issue can be circumvented

by incorporating multiple sources and by establishing a chain of evidence. Such a documented process enables any external reader to follow the process of conclusion making. For our case study, we assured to maintain construct validity by incorporating multiple passive and active data sources as well as assuring a chain of evidence during our interpretation process. Besides that, we did only analyze written information as well as interview statements in the context we obtained them without forcing them to match and support any other hypothesis.

Internal validity is guaranteed when the research setting is designed in a way that a clear causal relationship exists between cause and effects that are to be examined (Drost, 2011). In particular, the measured changes in the dependent variable should only be caused by changes in the anticipated independent variable, rather than by any unanticipated external variable. Yin (2014) further explains that the danger of not establishing internal validity does only concern explanatory, causal case studies while descriptive or exploratory studies do not engage in making causal interpretations. He emphasizes that case studies in general include the risk of making false inferences when the processes to be studied cannot be observed. According to him, the danger of violating internal validity can be mitigated by incorporating multiple data sources and by anticipating and allowing for different study developments and results. Further, he recommends to apply a pattern-matching technique as well as time series analysis in order to improve the internal validity of the case study. Dul and Hak (2009) further elaborate on this and explain that through the comparison of an expected pattern from previous research results with the observed empirical pattern, matching patterns may be identified. These patterns are supporting the initial hypothesis and thereby the internal validity of the case study. For our case study, we created internal validity by thoroughly investigating on previous studies that have been conducted on the efficiency and effectiveness of the EC merger regulations. Furthermore, we performed a quantitative analysis of 1,635 notified mergers between 2013 and 2017 to make sure that the duration-related characteristics of the Haldex case study match the observable patterns.

External validity refers to the potential to generalize the case study results. According to Drost (2011) this requirement is satisfied when the results obtained in an artificial setting can be replicated in a real-world setting. Yin (2014) is refining this definition and points out that case studies rely on analytical generalization instead of statistical generalization like surveys. According to him, this means that the results obtained through the case study should be generalized to theory or replicated in following case studies since no such thing as a “representative” case study exists. We were trying to generate external validity by comparing the analyzed case with previous cases. Further, we gave notion to case-specific characteristics, mainly obtained through interviews, when formulating the discussion on our research question.

Reliability describes the requirement that a case study's findings and results can be replicated by any future researcher given that he or she is following the same methodology on the same specific case as the previous researcher. This relates to the goal of eliminating any subjective perspectives and biases from the research, which could affect the conclusions derived from a case study (Yin, 2014). According to Yin (2014), the best approach for creating a reliable case study is to clearly document the methodology and procedure underlying the specific study and to develop a case study database. Regarding the reliability of our study we documented our progress and the development of our conclusions in a detailed manner. Furthermore, we always made sure that we conduct our analysis in the most objective manner. However, given the fact that our active data consists mainly of personal interviews the reliability is somewhat reduced. First, the interviews were only partly based on a predefined set of questions which makes it difficult to replicate these interviews later. To eliminate this issue, we documented our structure and questions used after having conducted the interviews so that any interviewer can use the exact content of our interviews and ask similar questions later on. Second, one cannot exclude the chance that the interviewees change their assessment of the events later, which can also affect the results of the study. However, since the respective merger did fail, the process we investigated is completed. Therefore, we assess the risk of changed answers of the interviewees to the same questions as unlikely.

In summary, we are convinced that the case study technique is suitable for investigating on the EC merger control procedures. To consider the critical research opinions, we made sure to address all four tests mentioned above and thereby maximize the quality of our research. Lastly, by consulting previous papers (*Section 2*), conducting a quantitative analysis (*Section 3*), and incorporating a multitude of active and passive data we ensured that we can derive objective, valid and reliable conclusions.

5 Case Background

Section 5 will provide relevant background information, which is useful to fully grasp the case (*Section 6*) and the following case discussion (*Section 7*). This section is subdivided into three parts. *Section 5.1* will give a brief overview on the regulations and institutions relevant for the case. *Section 5.2* will introduce the automotive supplier and brake system industry, in which the companies involved in the case are operating. Finally, *Section 5.3* will introduce the involved companies in greater detail.

5.1 Relevant Regulations and Institutions

In order to enable a better understanding of the case, we will provide a short introduction into the regulatory context applicable to the acquisition of Haldex by Knorr-Bremse. As the relevant regulations on European level have already been covered in detail (*Section 2.1*), this part will be limited to the relevant regulations and authorities in Sweden.

General regulations for Swedish companies are outlined in the *Swedish Companies Act* (“Aktiebolagslag”, ‘CA’). As the target Haldex is listed on Nasdaq Stockholm, the *Takeover Rules* (‘TR’) of this exchange apply to the acquisition.

Case relevant regulations from the *Companies Act* cover the allocation of decision power between the shareholders and the board of directors. Usually, the shareholders can exercise their decision right with respect to the company in the annual general meeting (CA, 7.1). However, shareholders with a holding of at least 10% can also request an extraordinary general meeting (EGM) to decide on a matter of higher urgency (CA, 7.13). For passing of a resolution, a simple majority of the votes cast is sufficient (CA, 7.40).

The board of directors’ duties comprise the organization and management of the company (CA, 8.4). Thereby, the board has to avoid preferential treatment of any shareholder at the expense of any other shareholder or the company itself. Consequently, before executing any resolution made at the general meeting, the board has to check them for such inequalities or other law breaches (CA, 8.41).

According to the *Takeover Rules*, the role of the board gets expanded in case of an acquisition attempt on the company. It has to follow the basic principle of preserving the interests of all shareholders with regard to the offer. While the shareholders retain the final decision on tendering their shares, the board features several key tasks in the process. For instance, the board has to decide, whether interested parties are allowed to pursue a due diligence and whether they are supported in their applications to competition authorities. To maximize the offer price the board is also allowed to approach further potential acquirers (TR, II.17). If an offer has been placed, the board has to evaluate it and publish its opinion at least two weeks prior to the end of the acceptance period. This serves as a good orientation for shareholders, often being less familiar with the takeover matter

and the target's business. The board's evaluation also has to include an assessment of the effects on the firm's employment situation caused by a potential merger (TR, II.19).

Further, the *Takeover Rules* provide some case relevant regulations on the design, acceptance, and completion of an offer. The acquiring company can include conditions into the offer which have to be satisfied prior to its finalization (TR, II.4). These conditions have to meet certain standards of objective assessability and typically relate to deal financing or regulatory deal approval. Moreover, a minimum offer acceptance condition is often included as the acquirer aims to achieve at least 90% ownership in the target. Above this threshold, the acquirer can pursue a forced buy-out of the remaining minority shareholders (CA, 22.1), in order to subsequently delist and fully integrate the target. In the case of non-fulfillment of an offer condition, the offeror can withdraw the offer, but only if the condition was of material importance for the merger. The offeror may choose to waive conditions fully or partly, e.g. lowering the minimum acceptance level.

One of the underlying goals of the takeover rules is to protect target companies from business disruptions that last longer than reasonable. Therefore, the total duration of an offer is limited to three months. For offers subject to regulatory clearance conditions, the maximum total acceptance period amounts to nine months, providing more time for the potentially required procedures (TR, II.7). If an offer is not completed when the acceptance period lapses, the offeror is not allowed to immediately place a new offer. Instead, the offeror has to wait at least 12 months for a new attempt. Still a new offer can be placed earlier, conditional upon the receipt of a recommendation from the target board (TR, II.24).

In some cases, the *Takeover Rules* do not provide a clear guidance or strict application is not reasonable. In such cases, the Swedish Securities Council ("Aktiemarknadsnämnden", "SSC") is responsible for issuing interpretative rulings or granting exemptions (TR, I.2). For instance, there is the explicitly outlined option for the SSC to prolong the maximum acceptance period upon request of the offeror (TR, II.7) or to remove the 12 months period between two offers (TR, II.24). As the design of the *Takeover Rules* to a big extent is based on the "*UK City Code on Takeovers and Mergers*", the SSC sometimes refers to the UK system in its decisions. Even though the SSC's tasks are of a regulative nature, it remains a private body with members being lawyers, managers, board directors or shareholder representatives. However, the SSC has some delegated authority from the Financial Supervisory Authority ("Finansinspektionen") and the Nasdaq Stockholm exchange.

5.2. Industry and Trend Overview

Before introducing the companies involved in the case, it is useful to understand the underlying market dynamics, which shape the business of these companies. The automotive supply chain can be simplified into a three-step structure. As the first step, suppliers deliver their products to the manufacturers ("OEMs"). They either supply components directly to the OEMs ("Tier 1"),

contribute subcomponents through other suppliers ('Tier 2') or provide all parties with raw materials ('Tier 3'). The components covered by Tier 1 suppliers range from transmissions (e.g. ZF) or axle systems (e.g. SAF-Holland) to seating (e.g. Faurecia) or tires (e.g. Continental). As the second step in the supply chain, vehicles are designed and produced by the OEMs, including familiar brands like Volkswagen or Volvo. Produced vehicles are divided into passenger cars and commercial vehicles. Commercial vehicles again comprise trucks, buses, trailers or heavy machinery, e.g. for farming (*see illustration in Appendix 4*). As the third and last step, dealerships or other sales channels address the final customer. Among others, cost pressure from the OEM's has led to an ongoing consolidation in the automotive supplier landscape over the past years.

A crucial and safety-critical component for vehicles are braking systems. For commercial vehicles this market shows an oligopolistic structure. Especially in the EU and the U.S., it is dominated by WABCO from Belgium, Knorr-Bremse ('KB') from Germany and Haldex from Sweden. These players are the only ones that possess the technology and production capabilities to make *complete* braking systems. All other market participants only feature a range of subcomponents and are small in size. Therefore, they are not considered as serious competitors. Further, market entry barriers for new players are considerably high due to substantial R&D investments and high regulatory standards for safety-critical components. Within the triarchy, WABCO and KB are the clear market leaders. Haldex lags behind them due to smaller scale, sales network and monetary firepower. Still the company's pipeline contains promising technologies.

There are several trends expected to substantially affect the future development of the commercial vehicle sector, including electrification and digitalization. Another major trend in this field is development towards autonomous driving, which could improve safety and reduce the hours of service as well as fuel consumption of trucks. As drivers make up for a large share of truck transportation cost, up to 40% savings could be achieved in the long run (Roland Berger, 2018). According to industry experts, autonomous trucks would require the integration of five major system components: Sensors, steering, powertrain, human machine interface ('HMI') and brake systems (*cf. Appendix 5*). A company assuming the role of the system integrator would become the driving force of the industry transformation. Hence, this position was considered very attractive. Some companies like ZF or KB had already acquired positions in several of the critical fields. For expanding the own coverage of the crucial system components, sensors and HMI were considered to be less problematic areas due to access to a vast number of providers. In contrast, brake systems were considered the bottleneck of the model as only three companies had the needed technology. WABCO, KB and Haldex had therefore become highly interesting acquisition targets.

5.3 Companies

In the following, the companies involved in the case (*Section 6*) will be described from the viewpoint of summer 2016. The target Haldex as the core of the case will be covered more extensively. The parts for each of the bidders are adjusted for their relative importance in the case.

5.3.1 Target - Haldex

Haldex AB is a supplier of brake products and air suspension systems for commercial vehicles. The company is headquartered in Landskrona, Sweden but has facilities across 18 countries worldwide (*cf. Appendix 6*). With over 2,100 employees Haldex generated sales of nearly SEK 4.8Bn in 2015.

The roots of Haldex trace back to Halda Fickurfabrik AB, founded in 1887, and Svenska AB Bromsregulatorer ('SAB'), founded in 1912. However, the firm as known today started to evolve in the 1960s when SAB started targeting also road vehicles with its train brake technology. The most relevant change to the company in the last years was the split of the company in 2011. Out of four divisions only the brake division remained. The hydraulic division was spun off into a new firm ('Concentric'), while the spring wire division and traction division were sold to Suzuki Metal and BorgWarner respectively. In 2012, Bo Annvik became the new CEO of Haldex. He adjusted the company's strategy, management team and financial targets. In the following years, Haldex had several successful product launches and opened a new R&D center. Annvik's initiatives resulted in significantly higher revenues, margins and cash flows until 2014 (*Appendix 7*), which was also reflected in the share price development (*cf. Appendix 8*).

After the transformation, the offering of Haldex comprises two product families, including eight product areas (*see Appendix 9*). The first product family, *Foundation Brake* with 57% of sales, includes '*Air Disc Brakes*', '*Brake Adjusters*' and '*Actuators*'. The second one, '*Air Control*' with 43% of sales, contains Electronic Braking Systems ('EBS'), Antilock Braking System ('ABS'), '*Air Treatment*', '*Air Suspension*' and '*Valves*'. Thereby, the product portfolio features all main components and subsystems of a complete brake module or suspension system. Haldex covers the development, manufacturing and distribution for the mentioned products, which are built into commercial vehicles, i.e. heavy trucks, trailers, buses and agriculture vehicles. Haldex has strong market positions in a majority of its product areas, especially in *Adjusters* as well as *ABS*, *EBS* and *Air Suspension* for trailers (*cf. Appendix 10*).

The company has three categories of customers. First, Haldex addresses vehicle manufacturers (Original Equipment Manufacturer, 'OEM'), e.g. Daimler. This category represents 56% of the revenues with almost equal shares for trucks/buses and trailers. The remaining 44% are generated through sales to the remaining two groups of customers, precisely distributors, e.g. Europart, in the more profitable aftermarket. These distributors are either the OEMs' distributors (Original

Equipment Service, 'OES') or independent distributors (Independent Aftermarket, 'IAM'). The distributors in turn sell the parts to workshops or vehicle owners (*see Appendix 11 for an illustration of the business model*). In this structure OEM sales create a higher installed base of Haldex products and therefore increased aftermarket sales after some years. Due to the time lag in the different markets, the business is more resistant against cyclicalities in the OEM business.

Haldex has sales across the whole globe. However, a vast majority of the sales comes from North America (55%) and Europe (33%), followed by Asia / Middle East (9%) and South America (3%). Haldex counts all major truck and trailer OEMs from North America and Europe among its customers (*cf. Appendix 12*). These regions also have especially high sales for the trailer segment as usage of trailers is more pronounced in regions with a better infrastructure. Even though China is the worldwide leader in truck production, it is not a key market for Haldex as manufacturers there usually do not demand the advanced technological standards of Haldex.

The firm has been listed since 1960 and is currently quoted on Nasdaq Stockholm as part of the Mid Cap list. The company has 44,215,970 outstanding shares, which are distributed mainly among foreign shareholders (40.7%), Swedish financial institutions (26.0%) and Swedish private individuals (25.5%). The stock ownership concentration is rather low. The 10 largest shareholders together own 31.7% (*see Appendix 13*). As of summer 2016, Haldex's Chairman Göran Carlson (5.7%) is the company's largest shareholder. His shares are registered under a custodial account at Skandinaviska Enskilda Banken.

After two very strong years and a promising start into 2015, Haldex had to fight worse market conditions with decreasing demand in North America, China and Brazil in the second half of the year. In addition, a version of its actuators had to be recalled in North America. This event led to lost sales, damaged reputation as well as one-time cost of SEK 96M in 2015. Given these circumstances Haldex prioritized profitability over growth for the year. Due to good cost control and relatively more sales in the high-margin aftermarket the company managed to maintain its operating margin of 9.3% (excluding one-time effects), close to the long-term target of at least 10%. Further, Haldex nearly double its earnings per share. On paper, also the sales of the company increased by 9% to SEK 4.8Bn. However, this increase was driven by a significant depreciation of the Swedish krona against major relevant currencies (*see Appendix 14*). After a correction for currency effects, sales actually decreased by 3% in 2015. Still, some product areas, like *Disc Brakes* or *EBS* for trailers, showed real growth. This was a good signal as both products were among the focus areas for the future of Haldex. The cash flow from operations halved mainly due to mentioned one-time effects and reduced accounts payable.

In the first half of 2016 sales further declined, especially due to weak market conditions for trucks in North America. Europe and Asia on the other hand, showed some upward trend with positive growth for trucks and trailers. The product recall still showed an impact. However, the impact was diminishing more and more. Despite the continued sales decline, Haldex managed to maintain relatively high operating margin levels (7.3%) due to solid cost controls and savings from a restructuring program. As opposed to the first half of 2015, cash flows now turned positive, mainly due to a better working capital management. The fragile business situation resulted in the share price falling back to levels of early 2014 (*cf. Appendix 8*). But there were also some positive outlooks. The future focus product *Disc Brakes* continued to show a positive growth development. Also, Haldex announced a Joint Venture with the Chinese company VIE for the development of electromechanical brakes to target the future market of electrical commercial vehicles. This innovative cooperation attracted further attention to Haldex across the automotive industry.

5.3.2 Bidder - SAF-Holland

SAF-Holland S.A. ("SAF") is a leading supplier of chassis-related components and systems for commercial vehicles. The firm is headquartered in Luxembourg but features 17 manufacturing locations across 6 continents. With over 3,100 employees SAF generated revenues of about EUR 1.1Bn in 2015. The company was formed in 2006 through the merger of two regional powers, SAF from Germany and Holland from the U.S.. Both companies had a long history in the industry with foundations in 1881 and 1910 respectively. The merged entity had its IPO in 2007 and is included in the German SDAX index since 2010.

Today, SAF markets its products through three umbrella brands. The SAF brand covers axle and suspension systems for trailers. The Holland brand comprises coupling and lifting technology. Finally, the NEWAY brand includes suspension systems for trucks and busses (*see Appendix 15 for SAF product groups*). The company sells its products to both OEMs and the aftermarket. One of SAF's biggest strengths is its position in almost all international markets. This fact, in combination with one of the largest and most dense spare part and service station networks worldwide, provides SAF with valuable direct access to a multitude of end customers.

In 2015, SAF introduced its 'Strategy 2020'. The key component of the strategy was to expand sales to EUR 1.5Bn until 2020 with an intended inorganic contribution of EUR 250M. At the same time an operating margin of at least 8% should be achieved. Due to covenants in SAF's financing agreements, the Net-Debt-to-EBITDA ratio should not exceed 2.0. In the event of a larger acquisition, the Net-Debt-to-EBITDA ratio could temporarily be limited to 2.5. Also, SAF's sales are currently rather concentrated, with only 10% outside of Europe and North America. This percentage should be increased to 30%.

5.3.3 Bidder - ZF Friedrichshafen

ZF Friedrichshafen AG is one of the largest automotive suppliers worldwide and focuses on driveline and chassis technology. The company is headquartered in Friedrichshafen, Germany. ZF employs over 138,200 people across 40 countries and reported a revenue of almost EUR 29.2Bn in 2015. The firm's foundation reaches back to 1915, when it served the production of gears for Zeppelins and other airships. The company is private and owned by two charitable foundations. The majority shareholder, the Zeppelin Foundation (93.2%), is controlled by the town Friedrichshafen, which creates a rather special corporate governance setting.

ZF has a very diverse product offering in the automotive sphere. The business has traditionally been split into 4 divisions: 'Car Powertrain', 'Car Chassis', 'Commercial Vehicle' and 'Industrial' (*cf. Appendix 16*). In 2015, the company acquired the large U.S. safety parts manufacturer TRW Automotive for USD 12.4Bn. TRW was integrated into ZF as the new division 'Active & Passive Safety Technology'. This division also includes brake systems, but only for passenger cars, not for commercial vehicles. In response to the current and future trends ZF also bundled several activities in the new division 'E-Mobility' in 2016. Services related to all divisions as well as after-market trading are combined under the separate business unit 'ZF Services'. A majority of the group sales are generated in cars and light commercial vehicles below 6 tons (81%) as well as the commercial vehicles sector (12%). The remainder is distributed across various other vehicle types. Geographically, ZF has a still a significant focus on Europe (47%), but also substantial revenues from North America (28%) and Asia-Pacific (22%).

ZF has the aspiration of technological leadership in the automotive sector. Therefore, the company invests large amounts of up to EUR 1.4Bn per year into R&D. In this context, ZF formulated its new leading principle 'SEE – THINK – ACT'. By combining environmental sensors ('see'), electronic control units ('think') and intelligent mechatronic systems ('act'), ZF wants to provide the complete solutions of the future, meeting the trend of autonomous driving.

5.3.4 Bidder - Knorr-Bremse

Knorr-Bremse AG ('KB') is the world market leader in braking systems for rail and commercial vehicles. The headquarters of the private firm are located in Munich, Germany. Still, it maintains over 100 presences in more than 30 countries. With nearly 24,300 employees KB generated over EUR 5.8Bn sales in 2015.

After its foundation in 1905, the company experienced a volatile 20th century heavily influenced by German history chapters. While KB developed and patented several breakthrough products, it also had to deal with the expropriation and dismantling of its main factory in Berlin after WWII. In 1985, uncertainty arose again when KB's two equal shareholders wanted to pursue

different strategies for the company. After one of them succeeded, he surprisingly turned towards religion and wanted to sell all his business interests. This was then when Heinz-Hermann Thiele stepped in to buy the company. Thiele had been with KB for 16 years and had worked his way up from a legal patent specialist to the Head of Sales. He already owned 7% in the company and was backed by Deutsche Bank to acquire the remaining stake. Through a radical restructuring, the new owner and CEO managed to establish the basis for the company's future success story with strong growth and high margins (*cf. Appendix 17*). In 2007, Thiele switched to head the supervisory board and since early 2016 he is now honorary chairman of the board. Still, he and his family own 100% in KB and it is said that no major decision is made without approval of the patriarch. Thiele is known as one of Germany's wealthiest individuals and most powerful business men, who is hard to stop once he has target in sight.

Today KB's products sales are separated into two divisions. The first one, 'Rail Vehicle Systems' (57%), targets mass transit and long-distance trains with its braking systems. KB also provides a variety of other systems, e.g. air conditioning or entrance doors for such vehicles (*cf. Appendix 18A*). The second division, 'Commercial Vehicle Systems' (43%), covers technologies for trucks, buses, trailers and agricultural machinery (*cf. Appendix 18B*). The core of this division are braking systems and components, like air-disc-brakes, actuators, EBS, ABS or valves. However, the product range also includes air treatment, dampers or transmission management.

To sustain its high growth rates, KB has established an impressive track record of acquiring and integrating around 100 companies over the past 30 years. Since 1993, KB was holding a 35% minority stake in Honeywell's commercial vehicle systems unit. In 2002, the German company acquired full ownership in the Joint Venture, which was renamed Bendix after its main brand. This was one of the most relevant steps in KB's recent development as it allowed the firm to gain a significant position in the North American commercial vehicles market. Overall, KB features a rather balanced sales distribution over Europe & Africa (44.9%), Asia & Australia (30.5%) and the Americas (24.6%). Europe remains a traditionally very strong region for KB, among others driven by its market leadership in the commercial vehicle brake systems.

KB places great importance on the technological superiority of its systems. Therefore, the company invests above-average amounts of up to 6% of its revenues into R&D. In line with the current automotive trends, KB has identified autonomous driving as one of the focus development areas for the future of its commercial vehicle systems. As autonomous driving requires not only braking but also steering technology, KB expanded its portfolio through the takeover of "tedrive Steering" in September 2016.

6 The Case: When Brussels hit the Brakes on the Haldex Acquisition

The following section will lead through the relevant events of the failed Haldex acquisition (*see Appendix 1 for a summary of the most relevant events*). The case is subdivided into four phases. *Section 6.1* presents the initial bid war between SAF, ZF and KB. *Section 6.2* will elaborate on the subsequent interaction between EC, acquirer and target. *Section 6.3* deals with the circumstances around the support withdrawal of the target board, that caused the failure of the acquisition. Finally, *Section 6.4* will show a brief epilogue on important developments after the merger was cancelled.

6.1 The Bid War for Haldex

14.07.2016 // During summer 2016 SAF-Holland (“SAF”) had unofficially approached the Haldex board (“the Board”) with suggestions for a potential acquisition. As both price and strategic rationale did not convince the Board, the approach was clearly rejected. However, SAF did not back down and in mid-July it initiated the bidding war for Haldex by launching a hostile public bid. SAF offered SEK 94.42 per Haldex share, all-cash. This first bid with a total value of SEK 4.2Bn showed a moderate premium over the past trading prices of the target. On the day prior to the announcement, the Haldex shares on Nasdaq Stockholm had closed at SEK 85.25¹. Accordingly, the premium did amount to 10.8%. Comparing the offer to the 3 months volume-weighted average share price (“3M-VWA”) of SEK 74.57, the bid constituted a premium of 26.6%. Utilizing the 6 months volume-weighted average share price (“6M-VWA”) of SEK 69.57 as a reference point, the resulting premium equals 35.7%.

The acquisition of Haldex was intended to support SAF’s ‘Strategy 2020’ with its previously mentioned sales target of EUR 1.5Bn in 2020. Detlef Borghardt, CEO of SAF, claimed that combining the complementary businesses of the two companies “would form a new integrated champion for chassis-related commercial vehicle components”. SAF made several arguments supporting this strategic acquisition rationale. First, the merged entity could become a “one-stop shopping solution for a wide range of components”. Second, the merger would expand SAF’s position in the aftermarket, valued for its high margins and low cyclicity. Lastly, Haldex would help SAF to improve its regional coverage of emerging markets in Asia and Latin America.

While the offer was subject to a minimum acceptance², i.e. SAF needed to gain control over more than 90% of the outstanding shares, it did not include a financing condition. SAF stated that the acquisition would be financed partly by cash and partly by a credit facility that was already secured for the transaction. The credit facility should later be refinanced through a capital increase.

¹ All share price information for Haldex AB was retrieved from [Nasdaq Stockholm](#)

² A minimum acceptance condition is mentioned for several offers across this case. For each mentioning, the respective threshold, e.g. 90%, always includes the shares already held by the acquiring party. A simplified example for illustration: The potential acquirer holds 20% of the shares. To meet a 90% minimum acceptance, further 70% must be tendered.

Due to the large relative size of the proposed acquisition as well as the required borrowing, analysts raised doubts about the financial stability of the merged entity.

On the same day Haldex announced that the Board would communicate the result of its offer evaluation no later than two weeks before the end of acceptance period. The acceptance period should last from the 1st to the 24th of August 2016. Additionally, the Board of Haldex confirmed a “credible non-binding takeover proposal from another third party” without providing further details. In the background, Lazard had been mandated by Haldex to find a more appropriate buyer for the company, who could act as a ‘white knight’. As a suitable match, the large German automotive supplier ZF Friedrichshafen (“ZF”) had been identified by the investment bank. The two companies had been in contact already in the past due to joint business projects. Together with the similar vision shared by the management teams, this laid a good basis for a potential further process. Apart from Lazard, Haldex also hired Mannheimer Swartling as legal advisor. SAF on the other hand was supported by the German private bank Berenberg.

04.08.2016 // Three weeks later, the Board’s search for a white knight seemed to be successful. ZF announced a competing bid and offered SEK 100.00 in cash per Haldex share. Valuing Haldex at SEK 4.4Bn, the offer was 5.9% higher than SAF’s. The premia over the closing price, the 3M-VWA and the 6M-VWA (all prior to the first bid by SAF) amounted to 17.3%, 34.1% and 43.7%, respectively. However, on the day before the ZF offer, Haldex shares had closed at SEK 104.25, significantly above ZF’s offer price (*cf. Appendix 8*), as the market was in anticipation of a bid war.

ZF explained that the acquisition of Haldex would be in line with its long-term strategy and its guiding principle ‘*SEE – THINK – ACT.*’, which targets an increased focus on autonomous driving. Adding Haldex’ brake systems for commercial vehicles to its portfolio would allow ZF to close a gap and address the complete functional chain of commercial vehicles with its technology. Stefan Sommer, CEO of ZF, elaborated further on the rationale of the transaction by emphasizing the “truly complimentary” businesses and the development potential of Haldex when backed by “ZF’s technological leadership, global reach and customer access”.

Similar to SAF, ZF also included a 90% minimum acceptance condition into its offer and declared it subject to approval from competition authorities. ZF signaled to take the necessary steps for obtaining this approval without further delay. Both parties expected the merger clearance without major difficulties as the companies did not compete in any markets. For support with the acquisition process, ZF also had retained Citi as financial and Linklaters as legal advisor.

Apart from a higher cash consideration, the ZF bid featured another strong supporting argument. The offer had been unanimously recommended by the Haldex Board. To evaluate the ZF offer, the Board had employed different common methods of company valuation. For instance,

multiples of comparable listed companies and comparable transactions had been applied. Additionally, the Board included its own estimation of the company's long-term value derived from the discounting of expected future cash flows (DCF). To complement these mainly quantitative benchmarks, the Board also considered more qualitative factors, like Haldex's current business situation, expected future business developments as well as potential risks to the company. As required by the Swedish Takeover Rules, the Board had to state its assessment of the "effects the implementation of the offer may have on Haldex". Here, the Board acknowledged ZF's "intention to work with the existing management team and employees to develop and expand Haldex". Overall, the Haldex Board deemed ZF's offer to be favorable and issued an acceptance recommendation to the shareholders, at the same time dismissing the offer by SAF.

In addition to this 'official' Board support, Göran Carlson, chairman of the Haldex Board and also the largest shareholder of Haldex (5.7% of shares), had committed himself to sell his shares to ZF. Accordingly, Carlson did not participate in any of the Board's decisions regarding this or later offers. The chairman's tasks were now limited to operational topics and the Board appointed Magnus Johansson as acting chairman for offer-related matters. For all other shareholders ZF's acceptance period should last from 22nd of August to the 30th of September.

11.08.2016 // A week later, SAF announced that it had re-evaluated its initial offer due to the higher competing bid by ZF. The CEO of SAF emphasized the importance of acquisitions providing "strategic value and pay off", rooted in the company's M&A principles. Further, SAF pointed out the already high valuation of its offer compared to listed peers of Haldex. To protect the interests of its shareholders, SAF therefore desisted from increasing its offer. This was in line with analysts, who viewed SAF already at the limits of its financial capacity. Still, SAF tried to promote its bid and underlined that it had received full merger control clearance, which assigned more certainty to the payment of the attractive offer price.

24.08.2016 // SAF's arguments, however, did not convince the shareholders of Haldex, and when the acceptance period ended, only 0.5% of the outstanding shares had been tendered. Even together with SAF's shareholding of 3.6%, the minimum acceptance of 90% had very clearly been missed and thus the company withdrew the offer on the next day.

05.09.2016 // For nearly two weeks ZF looked like the winner of the battle for Haldex. Though, in early September, Knorr-Bremse ('KB') entered the arena with an all-cash offer of SEK 110.00 per share, 10.0% higher than ZF's bid. KB's offer valued Haldex at SEK 4.9Bn with premia of 29.0%, 47.5% and 58.1% over the closing price, the 3M-VWA and the 6M-VWA, respectively (all

prior to the first bid by SAF). In contrast to ZF, the offer also exceeded the Haldex closing price of SEK 104.00 from the trading day prior to the offer announcement (*cf. Appendix 8*).

KB underlined the acquisition rationale of forming a larger commercial vehicle supplier covering a broader range of products and solutions. This expansion would address the customers' demand for sourcing most inputs from a single provider. In addition, Klaus Deller, CEO of KB, claimed that a combination of KB and Haldex would be very well-positioned to act as a "driving force for the industry's transformation towards autonomous driving". Also, Haldex could benefit from KB's advanced technology and its expertise in the truck market. Finally, the long-term oriented culture of a family-owned business as well as intentions to develop the groups whole trailer business under the Haldex brand should provide more comfort to the Haldex management.

Again, the offer was conditional on a minimum acceptance of 90% until the end of the acceptance period, lasting from September 27 to December 5. The 90% threshold should facilitate the compulsory redemption proceedings for the remaining outstanding shares (*cf. Section 5.1*), finally allowing KB to delist Haldex from Nasdaq Stockholm. KB had already made a first step towards this target by acquiring 8.4% of the Haldex shares.

Further, the offer was subject to the receipt of all necessary authority approvals at terms, "which in KB's opinion are acceptable". KB assessed the acquisition to require merger control clearances from the European Commission and the U.S. Department of Justice ('DoJ'). Thus, KB assured to file the relevant notifications "as soon as practically possible". Deller showed himself "very optimistic" with regard to merger control clearance. He had been in talks with the Haldex management and clarified that the bid "was no spontaneous move, but well prepared".

To dissipate doubts regarding the feasibility of the offer, KB pointed out its strong financial position with no debts and public ratings of A (S&P) and A2 (Moody's). KB also stated to have enough cash funds (EUR 1.4Bn) to afford the acquisition completely without external financing. Therefore, the offer did not feature any financing conditions. Moreover, KB had mandated Berenberg, formerly supporting SAF, and Roschier as financial and legal advisors.

Initially, the Haldex Board reacted in a neutral way by acknowledging the offer and the apparently high interest in Haldex. The Board declared to communicate its evaluation of the two open offers "in good time". The market reaction was more enthusiastic with the stock price reaching its peak at SEK 115.75 on that day. Hampus Engellau, Head of Automotive at Handelsbanken Capital Markets, explained: "I don't think this ends here, given ZF is such a strong bidder". He further estimated that the final winner would have to pay between 115 and 120 crowns.

14.09.2016 // However, on Wednesday morning of the following week, it was not the Board to make the next move in the Haldex case. Instead, ZF announced the raise of its offer by SEK 10.00

to SEK 110.00, equalizing the offer of KB. In addition, ZF lowered the minimum acceptance requirement from 90% to 50% and announced that not only the Haldex chairman but also two leading Swedish institutional investors (AFA Försäkring and Handelsbanken Fonder) had committed to selling their shares to ZF. Together with the already held 4.2%, the 17.1% from the major shareholders would equip ZF with over 21% of Haldex's share capital.

Still, these were not the only arguments pushed forward by ZF. To convince all stakeholders, ZF promised future investments into the expansion of Haldex's product offering. Though, the biggest advantage over KB was the signaled expectation to achieve antitrust clearance by the end of the week. The fast deal execution would not only provide shareholders with a higher transaction security, but also reduce the operational damage from an unclear ownership situation.

These arguments appeared to be compelling enough for the Haldex Board to again issue a unanimous recommendation for the ZF offer. The Board argued that the commercial rationale behind merging with ZF remained unchanged compared to the previous and already recommended offer. The financial rationale had even improved with an increased consideration.

For the Board's assessment of the bidding situation, the most significant change was the emergence of a new bidder. While KB's offer was deemed financially equivalent, the Board pointed out differences regarding certainty and execution time. Haldex had identified substantial business overlaps with KB. As a result, the legal advisors gave warning of a "lengthy review - potentially lasting 6 months or more", beyond the KB's offer expiry date, the 5th of December.

According to the Board this could have two major implications. First, the merger situation could interfere with the day-to-day business activities of Haldex, and also negatively affect the company's long-term prospects. Second, the Board underlined that even after a lengthy antitrust review, there was a significant risk of deal failure, in case the authorities prohibit the transaction or require remedies not acceptable to KB. ZF, on the other hand, showed no real overlaps with Haldex. Therefore, the Board urged the shareholders of Haldex to tender their shares to ZF until the end of the acceptance period, on the 30th September, and to reject KB's offer.

In the evening of the same day, ZF further reinforced the Board's recommendation by announcing full and unconditional merger control clearance in all concerned jurisdictions as well as ongoing discussions with further key investors. It is noteworthy, that it took ZF around four weeks to obtain the antitrust approvals even though this was a doubtless case.

16.09.2016 // At this stage only little was speaking against a successful acquisition for ZF. But KB and its owner Heinz Hermann Thiele did not have a reputation to surrender without a fight. The expected response from Munich came only two days later. On the Friday morning, KB set a heavy signal by increasing its all-cash offer to SEK 125.00, outbidding ZF by over 13%. With a Haldex

valuation of SEK 5.5bn, the offer exceeded the closing price prior to the first SAF offer by 46.6%. When using the 3M-VWA and the 6M-VMA as a reference point, the offer represented even larger premia of 67.6% and 79.7% respectively. KB's offer also was above the closing price of the prior day at SEK 118.50. This closing price had been significantly above the offered SEK 110.00, thereby indicating that the market had expected the actual continuation of the takeover battle. Further, KB had followed ZF with reducing the minimum acceptance condition from 90% to 50%. Apart from this and the consideration, all other terms of the offer remained unchanged.

CEO Klaus Deller stated that KB had observed the uncertainty among shareholders and employees of Haldex stemming from the unclear takeover situation. The adapted offer was intended to provide "comfort to the shareholders for deal completion". KB also announced the acquisition of shares outside the offer. The now 11.4% shareholding should further support KB's strong determination to acquire Haldex.

Still, ZF's position in Haldex was nearly twice as large as KB's. However, it was uncertain if ZF would raise its offer again to keep up with KB. In the afternoon of the same day an announcement from Friedrichshafen brought clarity. ZF increased the offer to SEK 120.00 but remained below the SEK 125.00 bar set by KB. In addition, the acceptance period was extended by a few days to the 3rd of October. All other conditions of the offer stayed the same. The value proposition of ZF's offer was clear: Safety and fast deal execution due to already achieved merger clearance. Though, Haldex and its shareholders had to carefully trade off these benefits against the monetary loss of SEK 5.00 compared to the offer of KB.

Notably, the closing price of Haldex at SEK 127.50 indicated that the market expected the bidding process to continue. But considering the already very high valuations, how much room was there for further increases? Hampus Engellau from Handelsbanken Capital Markets commented: "Knorr-Bremse's bid valued Haldex at 22-23 times its 2016 forecast earnings, a 40 percent premium versus a mean of key industry peers. (...) I think 125 crowns more than enough reflects the long-term value of Haldex."

19.09.2016 // Despite the difficult decision to make, the Board only took a weekend to form its opinion. The Board remained true to the previously chosen path and issued an unanimous recommendation for the lower offer by ZF, to the surprise of press and market participants. On the one hand, the Board acknowledged the financial superiority of KB's offer. On the other hand, it emphasized the importance of "delivering attractive value with certainty to the shareholders". Further, the Board pointed out that KB had "done nothing" to mitigate the substantial risk of deal failure due to a negative or for KB unacceptable result of the merger control review. As KB had not incorporated any commitments with regard to potential antitrust issues into the offer, Haldex

shareholders appeared to be the ultimate bearer of the transaction risk. Thus, the Board preferred ZF's "immediate upfront cash without any regulatory risk" and again rejected the offer by KB.

The Haldex support for ZF was publicly reinforced only two days later. At the IAA Hannover, the world's largest motor show for commercial vehicles, Haldex CEO Bo Annvik joined ZF CEO Stefan Sommer on stage during a press conference³. Together they promoted the merger of Haldex and ZF and Annvik again explained the advantages of merging with ZF instead of KB.

KB CEO Klaus Deller appeared irritated when commenting on the Board's decision. In his view, Haldex and KB had widely complementary businesses with manageable overlaps that were mainly limited to certain regions. If authorities required remedies, KB "would have solutions and would be ready make concessions". Therefore, Deller had been "very optimistic" regarding merger clearance from the beginning. Further, Deller criticized the behavior of Haldex responsables. The management had refused to discuss the antitrust issues with KB and now publicly "fraternized" with ZF. Deller concluded, he had "never experienced something like this".

26.09.2016 // A week later, the Swedish Shareholders' Association (Aktiespararna, 'SSA') expressed its opinion about the two outstanding offers. The SSA also showed a preference for ZF's offer as it was supported by the Board, had received regulatory approval and still featured an advantageous price with a high bid premium. Further, Josefine Gunnarsdottir, acting chief of SSA's market supervision department, commented on the uniqueness of the case with both the largest shareholders and the target Board favoring the second highest bid. The situation gained more complexity through the already significant shareholdings of ZF (21.2%) and KB (14.9%) allowing each of them to block a compulsory share redemption. Apart from evaluating the two bidders, the SSA stressed the opportunity to sell shares on the stock exchange. For the past week, Haldex had traded between SEK 125.50 and SEK 129.00, constantly above both offer prices, as hedge funds were still increasing their positions. The SSA noted that it was difficult to estimate whether ZF would again raise its bid or not. However, the shareholders tendering into ZF's current offer would automatically benefit from such an increase.

05.10.2016 // For the next week the involved parties did not interact with the public and seemed to await the shareholders' response until the end of ZF's acceptance period. Two days after the closing of the acceptance window on the 3rd of October, ZF announced the official withdrawal of its offer. Only 9.6% of the Haldex shares had been tendered to ZF. Even together with the substantial already held 21.7%, the 50% minimum acceptance condition was by far not fulfilled.

³ A video of the joint press conference (approximately 5 minutes): [Joint presentations of the CEOs of ZF and Haldex](#)

Therefore, ZF “decided to no longer pursue the offer” and to seek other ways to accomplish its expansion plans in line with its ‘Strategy 2025’. Still, ZF remained the largest shareholder of Haldex and signaled a responsible commitment towards the company’s future development.

For Fredrik Fogelklou, Head of M&A at Haldex and key responsible for the takeover, the shareholders decision came unexpectedly. He explained: “120 crowns for sure in a few weeks or pretty uncertain 125 crowns in some 9 months, for me there was only one logical decision”. It is unclear why sophisticated investors evaluated the situation differently. Hedge funds later communicated to Haldex that their investment principles in takeover situations included to “ignore” the biased assessment of often stressed targets. Therefore, the funds had placed much more trust in KB’s statements.

18.10.2016 // About half a month later Haldex announced a major change in its management team. CEO Bo Annvik was resigning as he would join the industrial group Indutrade as CEO. However, he would remain “CEO until further notice, at the most six months under his resignation period”. In addition to the complex takeover, the Board now also had to find a new CEO.

08.11.2016 // Left with only one potential acquirer, the Board had to re-evaluate the merger situation. Without Board support, KB’s offer, which was open up to the 5th of December, was still classified as a hostile takeover. Over a month passed by until the Board finally announced a conditional recommendation for KB. Haldex pointed out that the financial benefit of the SEK 125.00 offer had never been in doubt. However, the critical point, the regulatory risk related to antitrust approvals persisted. The Board clarified that throughout the whole time since KB’s first offer announcement, the Board had taken measures to support KB’s advisors with the required information for the regulatory filings. The Board would continue to cooperate and thereby uphold its legal duty “to act in the best interest of the shareholders”. However, it was now KB’s responsibility to transform its words (“fully convinced to successfully complete the transaction”) into action. Based on the described setting and lack of attractive alternatives, the Board recommended the Haldex shareholders to “accept the offer by KB, if and when Knorr-Bremse announces the satisfaction or waiver of its condition concerning the receipt of all necessary regulatory approvals and clearances on terms that are acceptable to KB”.

In addition to the general assessment of the situation, the employee representatives in the Board expressed several special concerns. First, they criticized the destabilizing effects of a lengthy merger investigation on the daily operations. Second, they pointed out the operational similarities between Haldex and KB, resulting in a substantial employment risk during the integration of Haldex. Last, they underlined the adverse employment effects of potentially required divestments,

which had not been sufficiently addressed by KB. Summarized, the employee representatives warned of business and employment risks to Haldex, regardless of the actual takeover outcome.

28.11.2016 // With just a week left until the end of the KB's acceptance period, also the SSA revised its position towards the bid. Due to ZF's withdrawal, the SSA now also promoted KB's offer. Still, the SSA noted, that the probability of merger clearance and consecutive deal completion was difficult to estimate. If the offer should be withdrawn later, the stock price was likely to fall below the current level of around SEK 116.00. Therefore, shareholders, that were averse to this execution risk exposure, should consider selling their shares timely through the stock exchange.

30.11.2016 // The acceptance deadline was approaching, and a major question was still open. How would the defeated bidder and largest Haldex shareholder position itself? After a small sell-off, ZF still owned 20.1% of outstanding shares, which empowered the company to effectively prevent KB from accumulating the 90% squeeze-out majority. But ZF did not show any signs of resentful behavior. Instead, the company emphasized to focus on a stable future for Haldex while "protecting the interests of ZF and reducing its financial exposure". Accordingly, ZF announced the intention to tender the remaining shares completely into KB's offer.

07.12.2016 // Under these circumstances, a successful outcome for KB seemed not unlikely. And indeed, after the acceptance window had closed, KB claimed a stage victory. 71.2% of the shares had been signed into the offer. With the previously acquired 14.9%, KB would control 86.1% of the share capital in Haldex. Klaus Deller appeared pleased with this result and promised to "create numerous advantages for all stakeholders, including employees, customers and business partners".

Further, KB elaborated on the state of the merger control reviews. In Europe, KB's request for referral to the EC had been approved. Through that, the investigation has reached the EC pre-notification phase, followed by an investigation solely executed on European level. In the U.S., KB had filed the relevant notifications with the DoJ. KB reinforced its "full commitment" to obtain merger clearance and stated that the "open dialog with the authorities" made the process ahead appear more promising to the German firm. At the same time, KB acknowledged that the merger clearance would require more time than originally estimated. Therefore, the acceptance period was prolonged by nearly three months until the 28th of February 2017.

6.2 Knorr-Bremse, Haldex and the EC Merger Control

14.12.2016 // Regarding the EC and DoJ processes, KB promised to inform the public about relevant developments. Soon after the prior 'success announcement', Haldex and KB received

“Second Requests” for additional information from the DOJ antitrust division. Both parties underlined their intention to cooperate closely and address the authorities’ requests with high priority.

20.12.2016 // While these announcements indicated a rather harmonic relationship between the merger parties, the pre-Christmas mood took a hit when Haldex released a comment on its Q4 earnings. Since the beginning of the takeover process in July, Haldex had experienced a significant increase in its extraordinary costs. The unclear ownership situation hampered the acquisition of new customers as well as the retention of existing clients or made both processes more costly. For instance, Haldex customers perceived a higher risk of non-performance. Due to that, Haldex had to switch to a full financing of development contracts, instead of the traditional cost split. Also, Haldex had to offer customers more generous payment terms with higher warranty provisions.

Apart from external effects, also internal functions were affected by the takeover. For example, the HR department criticized higher costs for employee retention and motivation as well as complications in the recruitment of qualified staff. Lastly, Haldex reported substantially increased legal costs, resulting from regulatory review (*cf. Appendix 19*). In total, the additional extraordinary costs for Q4 amounted to approximately SEK 70M. Even excluding extraordinary costs, the operating margin for 2016 was revised downwards from approximately 7.0% to 6.5%. Haldex blamed this development on the problems with generating new customer orders.

09.02.2017 // In 2017, over a month passed with the main accomplishments limited to the creation of a Clean Team⁴ and the submission of a *first draft* of the Phase I filing. The end of the extended acceptance window was less than three weeks away, when KB addressed the public again. The communication between merger parties and authorities had caused KB to update its estimate for the takeover time plan. Due to the necessity of a longer process for the antitrust clearance, KB decided to expand the acceptance period until the 16th of June. Despite the repeated deferral, KB reasserted all stakeholder of its commitment to the acquisition. Klaus Deller even showed himself “convinced that it is not a question if KB receives clearance, but how” and that KB would “aim to complete the process in due time”. Fredrik Fogelklou questioned KB’s assessment during a Haldex Board update on the same day. His estimated time plan (*see Appendix 21*) calculated two to three months for the pre-notification phase, which was common for similar cases. Even if it lasted only one month, the second acceptance period extension would only be sufficient, if the parties achieved EC clearance in Phase I. But given the complicated case this outcome was not very likely.

⁴ Within the Clean Team, a selected subset of Haldex and Knorr-Bremse employees cooperated closely during the merger control investigation. Under the condition that the employees will be put into quarantine in case of deal failure, the establishment of a Clean Team allowed for the exchange of sensitive information.

01.03.2017 // As notified half a year ago, CEO Bo Annvik left the company. Ake Bengtsson, who had been CFO of Haldex since October 2015, moved into the position of acting CEO. He combined industry experience with a deep understanding for Haldex and for the takeover situation. Therefore, the Board identified him as the right choice to lead the Haldex management.

19.04.2017 // Fredrik Fogelklou's assessment regarding the pre-notification time proved to be right. After February and March KB was still not done with answering the Commission's requests for information ('RFIs'). Even though several personal meetings with the EC had taken place, the company could not present major progress when addressing the public again. Instead, KB planned on a third extension of the acceptance period to the 26th of September. The parties had experienced difficulties in the antitrust process, in particular negative market reactions on the proposed merger and a complex development of carve-out scenarios. Accordingly, KB claimed to require "additional time to provide more thorough and detailed information to the authorities and to prepare potential remedies". Besides that, KB intended to use the time to develop a further elaborated concept for the EC of how the merger would foster innovation and consumer welfare. These measures should increase the probability of regulatory approval at acceptable terms.

However, the planned prolongation stood in conflict with the maximum offer duration of 9 months, set out in the Swedish Takeover Rules. The offer period had originally begun on the 27th of September 2016. Therefore, the newly proposed acceptance window would exceed the maximum allowance by 3 months and KB had to apply for an exception with the Swedish Securities Council ('SSC'). KB expected "the period requested to be sufficient for the offer process to be completed". The firm demonstrated further confidence by inquiring the SSC for an option to close the acceptance window earlier, in case antitrust clearance was achieved ahead of time. This practice should avoid unnecessary deferrals and benefit all stakeholders, especially Haldex shareholders.

25.04.2017 // The Haldex Board agreed with KB's assessment of process complexity and supported KB's initiative with the SSC. Based on the provided reasoning and the unconditional Board support, the Swedish authority approved both requests. This was the first time that the SSC had granted such an extension. Given the lack of further barriers, it was now up to KB to implement its "full commitment to the successful closing" into the merger control processes.

04.05.2017 // At the Annual General Meeting ('AGM') in Landskrona, Jörgen Durban was newly elected into the Haldex Board and appointed as chairman. Before Durban had been managing partner at Linklaters Sweden. With his extensive legal and M&A background he seemed to be well suited to lead the Board in the current situation. Further, Durban had shown a very high motivation

for his new role and started working with the Haldex responsables already during April, before his actual appointment. A change of chairman had become necessary after the former chairman had sold his shares to ZF and could thereby not participate in acquisition related decisions anymore.

In his update for the newly elected Board, Fogelklou again assessed the situation and time plan (*see Appendix 22*). As the Phase I filing had not yet taken place, even with the approved extended acceptance period there was not enough time for a later Phase II. A second extension by the SSC was regarded as “unlikely but not impossible” by Haldex. KB’s management and legal counsel shared this view. Therefore, KB planned on achieving antitrust approval within Phase I. However, given past speed of proceedings and the complex process ahead, it was unclear how exactly to meet this target. More difficulty was added by KB’s negotiation strategy with the EC. To minimize potential remedies, KB wanted to offer remedies as little and as late as possible. However, this would leave very little time for negotiations in Phase I, again reducing the clearance probability.

01.06.2017 // Nearly 9 months after had KB announced its first offer to the shareholders of Haldex, the brake manufacturer from Munich filed the official “Form CO” notification to the EC in accordance with Article 4 of ECMR (*see Appendix 23*). In a preliminary statement, the EC noted that the intended acquisition of sole control over Haldex “could fall within the scope of the Merger Regulation”, with the ultimate decisions still to be determined. Further, the EC asked interested third parties to provide their assessment of the proposed acquisition within 10 days. When addressing the EC, KB placed importance on the illustration of the deal rationale. The merged entity would be able to face the challenges of autonomous driving and become a relevant player in this field. This development was considered to be the major industry trend. By pooling advanced R&D and highly-qualified employees, KB would “foster innovation and keep pace with customers’ demands”. Realizing economies of scale would improve KB’s capabilities to face the “strong competitors in this new business segment”.

Through the filing, the Phase I investigation was initiated with the EC having 25 working days to gather detailed information from the merger parties, competitors and customers. In order to increase the likelihood to receive clearance, KB later offered the EC remedies. This extended the Phase I by 10 working days and delayed the decision deadline until the 24th of July 2017.

28.06.2017 // While KB was previously confident that the thoroughly prepared remedies would satisfy the EC, the correspondence and meetings with the regulators during June signaled serious complications. As a result, KB had now to admit that even though the ultimate decision was still outstanding, the EC was “likely to initiate a Phase II investigation”. In a regular case, such an in-depth investigation would last for at least 90 working days, eliminating a potential completion of

the offer within the current acceptance frame, until the 26th of September. To prepare for the likely Phase I outcome, KB intended to prolong the acceptance period again, this time until the 9th of February 2018. So, KB had to ask the SSC for a second exception on the maximum offer duration.

6.3 Board Resistance and EGM

29.06.2017 // As a Phase II seemed nearly inevitable, KB tried to appease all stakeholders by claiming that this was the “next common step in the merger clearance process”. Additionally, Klaus Deller reaffirmed the “clear objective to open the next chapter of KB’s history together with Haldex”. However, these words did not generate the desired effect and it was only one day later when the acquisition target decided for drastic measures. Without prior warning, the Board, led by its new chairman Jürgen Durban, publicly refused to further support KB’s antitrust clearance process. In addition, the Board would challenge KB’s application for extension with the SSC.

The Board explained this radical turnaround by providing a detailed assessment of the preliminary feedback from the EC. Based on the so far conducted investigation, the EC had “expressed *serious doubts*” due to potential anticompetitive effects regarding six out of eight Haldex product areas. These product areas, namely “Air Disc Brakes, EBS, ABS, Valves, Air Treatment and Air Suspension”, constituted over half of Haldex’s revenues.

Probably, divestments within the product areas to a third firm would be needed in order to dispel the EC’s doubts. The Board identified several significant issues with the implementation of such remedies. First, the magnitude of the concerned business parts would compromise the financial and strategic deal rationale for KB. This issue is further aggravated by the high selling pressure common for the sale of antitrust-concerned business units which can significantly lower the realized price. Therefore, the conditions for approval from the EC might become ‘unacceptable’ to KB, which would trigger the termination of the offer. Second, the EC had signaled that the few suggested buyers for the divested businesses might be inadequate since they themselves would raise antitrust concerns. Third, the highly-integrated operational structure of Haldex would impede the execution of divestments. Most Haldex plants produced various product types and R&D facilities each covered a range of different product technologies (*cf. Appendix 24 & Appendix 25*). This made it difficult to split off and sell certain product areas. In this context, the Commission’s requirement for a competitive viability of the divestments would add another hurdle to the process.

Apart from complicated divestments, the EC also communicated that “the criticism of the bid by market participants had been extensive”. The Board expected this issue to get even worse during a potential Phase II. Moreover, the Board criticized KB’s clearance strategy and pointed out that despite three extensions of the acceptance period, KB’s “qualitative and quantitative arguments had made little impression on the competition authority”. Accordingly, the Board did not expect that additional time would have a significant positive effect on the outcome of the investigation.

Instead, an extension until February 2018 would keep up the pressure on Haldex's finances and block internal resources, which could otherwise focus on the daily business. Acting CEO Ake Bengtsson added that the unclear ownership situation had irritated clients and "an additional extension would ruin the chance to get back into the project process with these customers".

Taken together, all these reasons had resulted in the Board's decision to oppose KB's uncertain acquisition attempt. Chairman Jörgen Durban commented on the situation as follows: "Our shareholders have in the short-term lost a bid of 125 SEK per share (...) but the Board is convinced that we can build greater long-term value that will benefit shareholders, as well as customers and employees."

30.06.2017 // The unilateral action from Landskrona had apparently taken KB by surprise. However, the response from Munich came already on the next day. KB saw clear benefits in additional time for the antitrust clearance, and thus disagreed with the assessment of the Haldex Board. The firm pointed out that it had "neither received indications nor reason to believe that the initiation of a Phase II investigation will have a negative impact on the feedback which market participants provide to the EC". KB also underlined that the '*serious doubts*' expressed by the EC did not impair its final Phase II decision. In fact, the EC had to apply a much higher standard and determine if the merger would "actually significantly impede effective competition".

Further, KB provided evidence for its full commitment to the acquisition. The company argued that substantial resources had already been devoted to the merger, and that KB was committed to invest more time and financial resources for gaining regulatory approval. In accordance with usual practice for such merger control procedures, both companies consulted external experts. The advisors mainly supported the parties with answering the EC's information requests as well as with the development of potential remedies. To relieve Haldex from a part of the financial stress, KB committed to take over the costs for the external advisors of Haldex from spring 2017 on and also during a potential Phase II. Despite the positive appearance, this commitment covered only carve-out related advisors, representing a small fraction of the advisor costs.

In addition, KB stated that a comprehensive divestment commitment had been filed with the EC on this day. Further, KB emphasized being ready "to offer significant remedies to get the transaction cleared". According to KB, the prepared remedies could cover all areas criticized by the EC. Moreover, the firm claimed that it "had set up a structured process to implement divestments (...) and had received indicative bids from several promising interested parties". The number of bidders could be even higher, but KB had deliberately kept it small to protect Haldex.

Though, KB's response was not limited to these clarifying statements. Instead, KB decided to meet the Board resistance with more appropriate measures and requested an Extraordinary

General Meeting ('EGM') of Haldex shareholders to determine the further course of action. Klaus Deller explained: "We cannot understand the step taken by the Haldex Board as it causes significant uncertainty for Haldex shareholders, customers and employees alike. (...) By requesting an EGM we will take the necessary steps to create clarity for all stakeholders as soon as possible." The EGM should rule on two interrelated points. First, Haldex's support with the SSC application for a prolongation of the acceptance period. And second, Haldex's assistance when dealing with the competition authorities during the approval procedures.

11.07.2017 // Haldex followed KB's EGM request and the shareholders received an invitation to the EGM, which should take place on the 17th of August in the Stockholm premises of Mannheimer Swartling. Besides the proposed agenda and the voting subject (*cf. Appendix 26*), the invitation also included the participation conditions for the EGM. Shareholders had to be recorded in the share register and send an attendance notification to Haldex prior to the 11th of August.

24.07.2017 // While the power struggle between target Board and acquirer now attracted most of the public attention, the EC investigation was still ongoing. This was when the EC announced the Phase I decision for case M.8222 (*see Appendix 27*): "The notified concentration raised *serious doubts* as to its compatibility with the internal market", in accordance with *Article 6.1c* of *ECMR*.

The Commission feared that highly concentrated submarkets might lose a significant player, effectively leaving KB and WABCO in a duopoly situation. The numerous markets in question⁵ were especially problematic as they featured high entry barriers in form of substantial R&D investments and strict regulatory safety requirements. Margrethe Vestager, European Commissioner for Competition, further explained the decision: "Brakes are a crucial component for the safety of the millions of trucks, trailers and buses that transport goods and passengers across Europe every day. We want to ensure that Knorr-Bremse's takeover of Haldex does not restrict competition for these critical components, which could lead to less innovation."

The remedies suggested by KB had not been enough to dispel the EC's doubts. So, as set out by *Article 6.1c*, the EC decision initiated a Phase II investigation. This granted the Commission at least another 90 working days, until the 30th of November 2017, for a final ruling. Still, the authority pointed out, that the Phase II initiation was no indicator for the final outcome.

Jörgen Durban identified the EC announcement as a confirmation of the Haldex's Board standpoint and assessed that "the likelihood for this deal to be approved continued to be very low". KB interpreted the EC decision differently and assessed positive and negative outcomes of the Phase II "equally possible". Further, Klaus Deller claimed that "an in-depth analysis was a common

⁵ EBS and air disc brakes for trucks and trailers, ABS for trailers, valves, air suspension as well as air treatment systems

approach in complex cases. Nothing was set in stone at this point in time and there was no reason for premature conclusions.” Again, KB reassured its full commitment to “merger clearance in the best interest of both companies”. KB perceived itself prepared for potentially required remedies, as it could revert to the initiated divestment procedures from Phase I. These had included a structured bidding process and a due diligence phase, resulting in several confirmed offers for the concerned product areas. Lastly, KB commented on the upcoming EGM and stated to treat the shareholder’s vote as “Haldex’s official position and thus binding for the Board”.

02.08.2017 // A week later Haldex provided a very extensive public response and pushed forward another radical statement. The Board had unanimously decided to not support the KB bid, irrespective of the EGM outcome. The Haldex Board substantiated this conduct with two legal sources. First, the ‘*Swedish Companies Act*’ outlines that the inherent objective of a company is profit generation. It also prohibits the Board to take actions that damage the company or act in the interest of some shareholders at the expense of other shareholders, the so-called ‘minority shareholders protection’. In general, the Board has to adhere to decisions of the General Meeting. However, it has to check these decisions for breaches of the Companies Act, e.g. of the regulations above. Second, the ‘*Takeover Rules*’ oblige the Board to act in the best interest of all shareholders. While this regulation leaves room for interpretation, the rules also include articles to protect the target company itself. Thus, the maximum acceptance period is limited to nine months, so the target company’s business is not interrupted for an unnecessary long time (*see Section 5.1 for more regulatory details and the respective paragraphs*). Taking these laws into account, the board had to weight the *expected benefit* against the *expected harm* of deal continuation, simplified into the equations below. If the second equation exceeded the first one, the Board had not just the right but the legal obligation to oppose the bid with all appropriate measures in order to protect the company and the shareholders.

- I. $(Potential\ benefit) \times (Success\ Likelihood) = Expected\ benefit$
- II. $(Potential\ harm) \times (Failure\ Likelihood) = Expected\ harm$ ⁶

Based on the information provided by Haldex it is possible to assess the different equations’ parts, mainly in a qualitative way. First, the *potential benefit* in a success case could be briefly summarized with the value of the cash consideration of SEK 125.00 per share in excess of Haldex’s standalone value. The stock market price of Haldex before the first bid by SAF (SEK 85.25) could be used as an approximation of this standalone value.

The two relevant scenario probabilities, the *likelihood of success or failure*, require a more detailed assessment. Haldex shared its view on how the merger clearance process was handled by KB during the past months. Haldex criticized that “the competition filings had been handled slowly by

⁶ Own development for purely illustrative and non-mathematic purposes. The equation parts are explained below.

KB”. Up until then, no other antitrust investigation for a Swedish target had exceeded the 9-month limit of the *Takeover Rules*, regardless of the case complexity. KB though had filed the formal application to the EC only in June 2017, at a time when the bid process usually would have to be in finalization. If the SSC approved KB’s wish for an extension, the bid would remain open for a total of 17 months, nearly two times longer than any other bid for a Swedish company. Further, despite opposite public statements from Munich a plan for antitrust approval had only been presented to Haldex in January 2017, after repeated requests. However, this plan was not able to withstand in the discussions with the EC. Accordingly, the Phase I did not end as desired. Therefore, the Board evaluated KB’s claim to have a clear plan of action as “not credible”. In line with these points as well as the arguments presented already on the 29th of June, the Board estimated that “even if the Board supported the bid, (...) the probability of approval by the authorities would still be very low”.

Regarding the monetary component of the second equation (*potential harm*), the Board outlined how the KB bid was substantially damaging Haldex. A fundamental issue was that the bid prevented Haldex from signing long-term customer contracts. The commercial vehicle industry features rather long platform life cycles of 5 to 10 years. This makes it crucial for suppliers to participate in the development phase of a new platform, to not lose customer access for a lengthy time period. Now, the unclear ownership situation was deterring customers in two different ways. First, some customers prefer to procure several inputs from the same supplier, the ‘*one-stop-shop*’ principle. If Haldex would be split up because of required divestments, these customers could no longer be served with a product bundle. Second, some OEMs apply a system called ‘*dual sourcing*’. This involves the sourcing of the same product from at least two suppliers in order to reduce the risk of supply shortages and resulting production breakdowns. KB as one of the dominant market players already serves some Haldex clients. In case of a merger with KB, these clients would no longer consider Haldex as a second source, and likely buy from another supplier. When compared, the *dual sourcing* issue had more severe implications and contributed to actually negative sales synergies for the merger.

In fact, Haldex estimated that eight major contracts with a potential total annual value of over SEK 500M were affected. The customers had explicitly put procurement from Haldex on hold until the ownership is clarified. To preserve the chance of re-entering the procurement processes, Haldex had decided to finance R&D for the contracts alone. Nevertheless, for two contracts with an annual value of SEK 139M and SEK 65M Haldex had irretrievably missed the chance of becoming the final supplier.

Moreover, Haldex elaborated on the HR-related difficulties arising from the takeover uncertainty. Important employees, including rare R&D specialists or former CEO Bo Annvik, had left the firm during the ongoing acquisition process. Also, recruitment faced increased hurdles and

open positions could not be filled appropriately. Already decimated, the left responsables had to sacrifice substantial time to support KB with the merger control clearance, leaving even less resources for the day-to-day business. Haldex stated that it had devoted “tens of thousands of hours” to the process and had prepared a vast number of documents (*see Appendix 28 for a detailed list*).

Apart from the associated workload, the provision of information documents raised another serious problem. KB as well as the potential buyers of divested business parts, that had been invited to a due diligence, all gained access to sensitive information. As these companies constituted some of Haldex’s close competitors, the information could be leveraged to get a competitive advantage over Haldex. Lastly, Haldex also estimated the costs for external advisors to approximately SEK 91M until September 2017 (*cf. Appendix 20*). In line with the communicated commitment, KB had only taken over the carve-out related advisor expenses of around SEK 2M.

Overall the Haldex Board, assessed that the potential harm from a continuation of the process was too high in relation to a too low probability of merger clearance (*see Appendix 29 for Jörgen Durban’s illustration of the relationship*). The ongoing takeover was deemed to “reduce the value of the company and impair the possibility for the shareholders to either receive a new bid for the company or to benefit from the creation of long-term shareholder value on a standalone basis”. In accordance with the equation above, the Board saw the duty to stop the support for the KB bid. If the EGM voted for the proposals of KB, this vote could be considered conflicting with the legal rules explained above. Thereby, the vote could be disregarded by the Board. To protect the company and the shareholders, the Board also requested the SSC to rule on KB’s intended extension as soon as possible, even though KB had not filed an application with the SSC yet.

04.08.2017 // Two days later Haldex updated the public about its communication with the SSC. According to Haldex, the authority signaled to decide on the extension matter at a meeting on the 16th of August, one day before the EGM. KB published a response on the same day and classified Haldex’s market communication as “misleading”. Also, KB argued that the shareholders, who were ultimately exposed to the financial risk of the takeover failure, should have the opportunity state their opinion at the EGM. Therefore, KB asked the SSC to take the shareholders vote into consideration and therefore to await the EGM.

09.08.2017 // With a week left until the EGM, the Swedish Shareholders’ Association (“SSA”) shared its view on the complex situation and reversed its opinion on the KB bid again. While acknowledging the financial attractiveness of the offer, the SSA supported the Haldex Board and warned the shareholders of the high completion uncertainty inherent to the KB bid. It also underlined the continuous harm that the takeover process was doing to Haldex’s operations and thereby

finally to the shareholders. As a result, the SSA recommended the shareholders to withdraw their acceptance of KB's offer. Such an action is possible within the acceptance period, as long as the bidder did not announce that the offer was completed. The SSA also advised the shareholders to participate in the EGM and vote against KB's proposals.

14.08.2017 // Three days before the EGM, Haldex announced the outcome of the attendance registration. Shareholders with over 53% of the shares and votes had confirmed their participation at the EGM. Of these shares, KB owned 14.9% but the company was not allowed to participate in the vote. The rest was mainly split between ZF (20.1%), hedge funds (12.0%), institutional funds (6.0%) and private owners (0.1%). Haldex appeared to be positively surprised by the strong shareholder engagement and Jörgen Durban added that the company "had received daily calls from smaller shareholders who wished to show their support for Haldex". But it was not the small shareholders who would decide the vote in the end. Therefore, the two opposing parties were continuously engaged in talks with the key shareholders to secure the required 50% +1 majority of voting shares, which was required to 'win' the vote. Especially ZF's behavior was awaited with great interest. First, because of its high shareholding and voting power. And second, because rumors were out that ZF might return as a *white knight* into the game to "save" Haldex.

Shortly after the information on the EGM participation, Haldex gave notice that the SSC would decide on the acceptance period prolongation only after the EGM. The SSC stated that it wanted to await an official filing by KB and therefore did not follow Haldex's request for an immediate ruling. Jörgen Durban complained about "the SSC actively avoiding to create clarity when given the opportunity to do so" as the ongoing uncertainty was damaging Haldex.

17.08.2017 // Three days later it was time for what was expected to be the final showdown of this takeover. The EGM was about to take place in the Stockholm premises of Mannheimer Swartling. It was unclear whether the shareholders would decide for loyalty with their own Board or the SEK 125 per share. Shareholders representing 54.0% of outstanding shares were attending the EGM and after speeches from representatives of both parties it was time for them to vote. As previously announced KB (14.9%) was not allowed to participate in the vote. ZF (20.1%), the largest shareholder of Haldex, decided to abstain from voting. The vote of the remaining 19.0% was rather clear. 18.1% voted for the proposal of KB, 0.9% against it. This seemed to be a bitter defeat for the Haldex Board, however the chairman's reaction did not reflect any resignation: "Owners sometimes think and vote differently than the Board and that is entirely in accordance with the rules of the game." Further, Durban criticized ZF for its little responsible behavior, allowing "a minority of the shareholders, mainly short-term speculative owners, to put Haldex in a continued uncertain

situation.” Still, the Board announced to follow its legal duty and resist KB’s bid in order to protect the company and all shareholders, even against the EGM resolution.

25.08.2017 // After KB had now officially applied for a second extension with the SSC, Haldex followed its intended path and requested the SSC to dismiss KB’s request. The Swedish company stressed that even two months after the EC had signaled its serious doubts, KB had not presented a clear plan for obtaining regulatory approval. Accordingly, the Board’s assessment was “still that the EC would not approve the acquisition which made this a necessary, but nevertheless a controversial decision.” The Board’s conduct was further backed from an outside expert. Erik Nerep, Professor of Swedish and International Trade Law at the Stockholm School of Economics stated: “The Board of directors owes a duty of loyalty and a duty to obey towards Haldex AB per se, but not in relation to individual shareholders or groups of shareholders, unless consensual authority is at hand.” As this was not the case at the EGM, the *Companies Act* allowed the Board to ignore the order if this protected Haldex and the shareholders. If the Board had followed the EGM resolution, the Board members could even have been personally liable for potential business harms.

07.09.2016 // With support from the Board another extension would have been not unlikely. However, in the present situation the SSC had to choose between following the Board’s argumentation or giving KB another chance in accordance with the shareholders’ vote. In its statement AMN 2017:27, the SSC pointed out that a prolongation would expand the process to nearly double of the 9 months as allowed under the *Takeover Rules*. This fact alone would “give rise to doubts” for the authority. Though, the SSC also acknowledged that Sweden had only had very little exposure to takeovers with a Phase II investigation. Therefore, the 9-month rule was usually not tested and potentially not fully suitable for such a case.

Since there seemed to be a gap in the Swedish *Takeover Rules*, the SSC decided to derive its decision from the *UK Takeover Code*, which had already influenced the design of the *Swedish Takeover Rules* to a great extent. As an EC Phase II had been opened, the SSC did not allow a prolongation of the acceptance period. Accordingly, the offer would expire on the 26th of September. However, even without an open bid KB could still pursue the Phase II investigation. If it was completed successfully, KB would have the chance to address the Haldex shareholders with a new offer soon afterwards. In a normal case, at least one year has to pass between an unsuccessful offer and a new offer by the same company, unless the new offer is recommended by the target board. But due to the special circumstances, the SSC was “prepared to grant an exception”, if the new offer was made within three weeks after the EC Phase II decision.

As expected, the involved parties' reactions to the SSC ruling differed largely. Jörgen Durban appeared to be "obviously pleased that the SSC made the only possible decision" and stated that "many in Landskrona and in other Haldex facilities around the world were relieved". Being a lawyer, Durban emphasized that the current Swedish Takeover Rules had revealed deficiencies. He hoped that the Haldex case would trigger a discussion on required adaptations.

KB, on the other side, was less satisfied. Klaus Deller found "the SSC's decision (...) difficult to understand as shareholders had explicitly expressed their ongoing support for KB's offer". Also, KB was evaluating whether it eventually made sense to continue with the EC merger control process, given that the SSC seemed ready to allow for an accelerated new offer in case of antitrust approval. Though, without support from the Board, Haldex would not provide the extensive information which was "key prerequisite" for having any chance of regulatory approval. Therefore, passing a Phase II investigation in this hostile takeover setting would be virtually impossible.

19.09.2017 // KB came to the same conclusion and accordingly abolished the acquisition two weeks later with the following announcement: "Without the cooperation and support of Haldex, merger clearance cannot be obtained. Completion of the offer was conditional upon, inter alia, receipt of all necessary clearances from authorities on terms acceptable to KB as well as Haldex not taking any measures that were likely to impair the prerequisites for implementing the offer. These offer conditions have not been met now and will clearly not be met within the acceptance period. Therefore, KB withdraws the offer and must terminate the merger clearance process".

Commenting on the failed merger as a whole, Klaus Deller pointed out that the takeover had always been intended in a friendly manner. Haldex had been approached with an attractive offer to pursue a merger, which would have benefited all parties. But given the circumstances, Deller said "KB would now pursue alternatives" to support its inorganic growth ambitions. Already in March, KB had announced its plan for potential further acquisitions with values around EUR 500M each, even in addition to Haldex. Deller stated back then: "We are not yet finished with the expansion and revamp of the company." As a result of the withdrawal, shares tendered into the offer would not be purchased by KB. Regarding the already held 14.9% stake in Haldex, Deller promised to "act as a responsible shareholder (...) in the best interest of Haldex and KB".

Haldex reacted with relief on the end of the public takeover battle and the related uncertainty. Finally, the Swedish company could focus on the crucial long-term contracts with its customers again. After the successful defense, the chairman showed himself confident "to build a stronger, competitive Haldex with customers, employees and shareholders in focus". Formerly defeated ZF, still the largest shareholder of Haldex, commented that it had taken note of the recent developments. However, ZF "currently did not see any reason for posting a new bid".

6.4 Epilogue

The year following the failed acquisition involved several events of interest and further background information was revealed. In July 2017, WABCO had announced a “takeover offer from an unnamed party” together with its Q2 earnings. Later it became evident that ZF had been the mysterious bidder. However, the deal was canceled as town representatives in control of the Zeppelin Foundation, the majority shareholder of ZF, assessed the leverage and risk as too high. CEO Stefan Sommer, who had shaped ZF’s rise to a globally leading automotive supplier, left the company as he could not carry out his vision. The takeover talks with WABCO could explain why ZF did not re-enter the battle for Haldex when KB started to experience serious merger control difficulties. Still, ZF remains largest Haldex shareholder, owning about 20% of shares.

In September 2017, shortly after the bid withdrawal by KB, Ake Bengtsson became permanent CEO of Haldex. The former CFO had led the company as acting CEO since Bo Annvik stepped down from his position in March 2017. The operations of Haldex are recovering from stress related to the offer. Still, forgone contracts have a long-lasting financial and commercial effect. KB’s takeover attempt also affected the power structure in the market. The CEO explained that before the KB bid or when merged with ZF, Haldex had the potential to put pressure on KB and WABCO as a strong third competitor. After Haldex went through the burdensome takeover and merger control process, the market leaders’ concerns with regard to the Swedish competitor were significantly smaller. This development was also reflected in the share price, which fell back to pre-bid levels of under 90 crowns in 2017 and even further below 70 crowns in 2018.

In contrast, Knorr-Bremse announced record sales of EUR 6.2Bn for 2017, up by 13.7% compared to the previous year. Even despite the failed acquisition and related costs, no member of the senior management had to leave. This lack of consequences was slightly surprising, for a company that was known for its strong emphasis on cost efficiency. KB sold off part of its shares after the withdrawal. However, the company still maintains a position of 10.1%, which makes it difficult for any other company to acquire and integrate Haldex without KB’s consent. In May 2018 at the annual general meeting of Haldex, KB alone voted against discharging the Haldex Board from liability. Chairman Jörgen Durban commented: “We have the firm support of a clear majority of shareholders, which demonstrates that we have acted in the interests of our shareholders. The initiative came from Knorr-Bremse, which has strategically tried to hinder Haldex as a competitor since the attempted hostile takeover last summer.” In October 2018 KB got listed, marking the second largest German IPO of the year.

Apart from impacting the involved parties, the Haldex case also led to a change in the *Swedish Takeover Rules*, the so-called “Lex Haldex” (*cf. Appendix 30*). The new rules resemble the UK legislation, which the SSC had considered for its final decision.

7 Discussion

The proposed acquisition of the Swedish company Haldex by the German brake manufacturer Knorr-Bremse was widely discussed by public and media. This case has well illustrated the complexity of the EC merger control process and the corresponding difficulty for merging parties to receive regulatory approval. Further, the merger clarified that the advantageousness of a merger can be assessed differently depending on the respective stakeholder. In the following, we aim to elaborate on this. Thereby, this section is structured as follows. First, we are going to explain why the takeover did generate such a great interest from the EC and whether the potential change in the competitive landscape did justify the EC investigation. Here, we are also incorporating changes in WABCO's stock price in order to derive the market's perspective on the proposed transaction. Second, we are going to discuss the impact the EC regulations had on the merger process, the parties involved and thereby the success of the merger. Third and finally, we will introduce and elaborate on factors beyond defined EC processes, timeframes and requirements which had an impact on the transaction process.

7.1 EC and Market Perspectives on the Proposed Knorr-Bremse / Haldex Merger

We begin by elaborating on the reasons why the proposed deal raised concerns within the EC. After that, we are using stock market data in order to investigate how the market evaluated the impact a merger between Haldex and KB would have on the competitive landscape and thereby the competitors' profitability. We chose to focus on WABCO as a representative competitor given the dominance of three main players, namely WABCO, Knorr-Bremse and Haldex in the market. Finally, we are going to explain why the parties preferred the merger to be reviewed by the EC instead of making use of their option to apply for a full referral of their case to national authorities.

In order to understand the *EC's perspective*, one needs to apply the EC antitrust regulations and their scope on the specific setting present in the case of Haldex and Knorr-Bremse. For assessing the *EU dimension* of the merger, the EC follows defined processes with quantitative thresholds as explained previously (*Section 2.1.2*). Based on public information we were able to confirm that the combined parties' turnover did exceed the first requirement of the original test. A detailed breakdown of the parties' European turnover, needed for the evaluation of the further requirements, could unfortunately not be obtained. However, Fredrik Fogelklou confirmed that even though Haldex did not fulfill the second requirement of the original test, both parties satisfied the lower monetary thresholds applied in the alternative test. Therefore, the merger was deemed to have an *EU dimension* and being subject to a following EC review. The results of the original and the alternative test are summarized below in *Appendix 31A* and *Appendix 31B*.

With regard to the *combined market shares*, we identified a dominant position for the merger parties across various combinations of product areas, vehicle types and sales channels in the EU. The illustration of this assessment can be found below in *Table 5* for narrow and *Table 6* for wide market definitions.⁷ In simplified terms, Fredrik Fogelklou explained that areas below 25% (green) were not questionable. Areas with 25%-50% (orange) would be a substantial but manageable issue. Finally, areas above 50% (red) would be a serious problem when negotiating with the EC.

Products areas	Vehicle Group: Trailer			Vehicle Group: Truck/Bus		
	OEM	OES	IAM	OEM	OES	IAM
Actuators	29%	38%	25%	25%	25%	21%
Disc Brakes	86%	62%	58%	55%	61%	51%
Slack Adjusters	40%	25%	24%	99%	99%	50%
EBS	42%	42%	42%	65%	65%	65%
ABS		20%	21%		5%	5%
Air Treatment				85%	74%	57%
Valves	42%	41%	36%	60%	55%	34%
Air Suspension	72%	72%	68%	40%	40%	25%
All Products	57%	57%	47%	57%	59%	45%
<div style="display: flex; justify-content: center; gap: 10px;"> >50% 25-50% <25% </div>						

Table 5: Combined EU market shares of Haldex and Knorr-Bremse with narrow market definitions [Source: Haldex AB, 2016]

Products areas	Vehicle Groups		Sales Channels			Total
	Total Trailer	Total Truck/Bus	Total OEM	Total OES	Total IAM	
Actuators	27%	23%	26%	25%	22%	24%
Air Disc Brakes	67%	56%	65%	61%	54%	60%
Slack Adjusters	30%	69%	67%	40%	39%	49%
EBS	42%	65%	60%	61%	52%	59%
ABS	21%	5%		6%	15%	12%
Air Treatment		71%	85%	74%	57%	71%
Valves	39%	50%	54%	53%	34%	47%
Air Suspension	70%	38%	46%	43%	41%	45%
All Products	52%	54%	57%	59%	45%	53%
<div style="display: flex; justify-content: center; gap: 10px;"> >50% 25-50% <25% </div>						

Table 6: Combined EU market shares of Haldex and Knorr-Bremse for wide market definitions [Source: Haldex AB, 2016]

When considering all products areas together, the combined market share of Haldex and Knorr-Bremse would have been between 45% and 59% for all combinations of vehicles types and sales channels (see last line of each table). When considering the product areas individually, the

⁷ Our assessment as well as the following combined market share numbers (*from Table 5 and Table 6*) are based on Haldex market share estimates before Haldex and KB started to evaluate market shares jointly.

combined market shares would have been problematic for six out of eight product areas with values between 45% and 71% (see last column of *Table 6*). Only for the product areas Actuators and ABS with combined market shares of 12% and 24% respectively the merger did not seem to significantly impede competition. Fredrik Fogelklou summarized the assessment by Haldex as follows:

“In an antitrust analysis you can define the market differently. But no matter how we defined the market - there was significant overlap across products, markets and technologies. KB already had a dominant position. Merging with Haldex with strong market niches would enhance KB’s position to a point where it can control the market.”

When considering the *combined market shares*, it becomes clear that the merger did not qualify for a *simplified procedure*, as the threshold of 20% for horizontal mergers would be significantly exceeded. Accordingly, a full investigation by the EC appears to be justified.

As indicated by Ake Bengtsson, the synergies anticipated by Knorr-Bremse did mainly stem from increased market power instead of efficiency gains or additions to KB’s offering. In this case, synergies could have been generated by increasing the clients’ dependence on the combined entity.

To gain an additional perspective on the competitive effects of the merger we analyzed the *market assessment* of the merger’s competitive effects. Following the role model of Duso et al. (2007), we did examine a competitor’s abnormal stock return on the merger announcement date. Further, we investigated whether the stock price showed abnormal movements following other important events during the merger process. In line with the referenced study, we define a merger to be anti-competitive when the competitor’s stock price shows a positive abnormal return. The underlying logic is that other competitors benefit from lower competition at the expense of the consumers.

We chose WABCO for the purpose of this analysis, as it is the most relevant competitor to KB and Haldex and also a listed company. We examined stock price movements between the first bid on Haldex (14.07.2016) and the final withdrawal of the offer (19.09.2016). To only capture stock price movements related to WABCO’s immediate business, we tried to account for movements in the general market or the broad automotive industry. Therefore, we benchmarked WABCO against the MSCI ACWI Automobiles and Components Index (‘MSCI’). This global index is composed of 92 constituents including vehicle manufacturers as well as suppliers of car equipment, tires and rubber. Hence, it is supposed to sufficiently capture the external effects.

WABCO did not show remarkable abnormal returns over the MSCI following the announcement of KB’s initial as well as the increased offer. This can be explained with the fact that not only KB, but also ZF did bid for Haldex whereby it was highly uncertain which firm would win the bidding contest. However, the future competitive landscape for brake systems differed largely with the final acquirer. While a merger with KB would have reduced the number of serious

competitors for WABCO from two to one, an acquisition by ZF would have strengthened Haldex’s competitive position through a partner with financial resources and strong global presence.

To overcome the unclarity created by the bidding contest, we expanded our analysis to events that established more certainty for the acquisition of Haldex by KB. We could identify an event that serves this purpose especially well: The recommendation of the formerly hostile KB bid by the Haldex Board (08.11.2016), after ZF had exited the process. We find that WABCO outperformed the MSCI by 4.8% on the day following the Board’s recommendation, as illustrated in *Figure 1* below. Around this date we did not find any earnings announcements or similar price-relevant news for WABCO. To search for such price-relevant news we considered WABCO’s official press releases and investor information, as well as the database S&P Capital IQ. Overall, we believe it is reasonable to attribute the remarkable abnormal WABCO return to the recommendation event of the Haldex takeover. These findings lead to the conclusion that based on the argumentation of Duso et al. (2007), the merger was assessed as anti-competitive by the market. Accordingly, the market assessment supports the EC’s doubts regarding the competitive effects of the merger and further justifies the initiated EC merger control investigation.

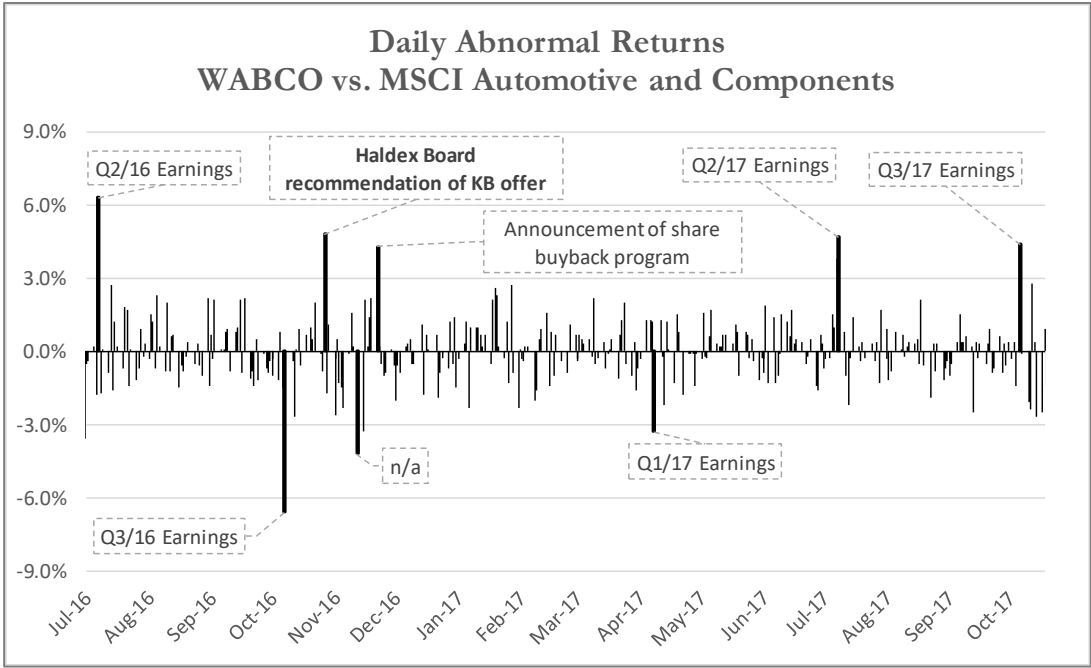


Figure 1 [Source: Own analysis based on data from Onvista and WABCO Holdings Inc.]

To avoid an EC investigation, the parties could have applied for a *referral* of the merger to several national antitrust agencies. However, as indicated by Fredrik Fogelklou, this option has been rejected for two reasons. First, the parties identified lower timely efforts when interacting with only one authority. Second, the parties’ sales structure involves large distributors (e.g. Europart). The total sales are assigned to the distributor’s national market (e.g. Germany for Europart), even though it is reselling the items globally. As a result, KB’s and Haldex’s market shares are extremely

high in some countries. By interacting with one authority that takes the overall picture into account the risk of failure was anticipated to be lower.

In summary, the proposed merger did clearly attract the interest of the EC due to its *EU dimension* and the dominant *combined market shares* across different market definitions. In line with this assessment, WABCO's stock returns indicated that the merger would have been anti-competitive, benefiting the companies in the market at the expense of the consumers. For structural reasons, the parties did reject the option to apply for a review carried out by national authorities.

7.2 Impact of the EC regulations on the Merger Process and the Parties Involved

In the first part of our discussion, we clarified why the proposed merger required an EC review. In this part, we will focus on the exact impact the EC regulations and prescribed processes had on the merger. Hereby, we will first explain the direct impacts before addressing the indirect ones.

The failed merger of Haldex and Knorr-Bremse provides a great example for the *direct costs* an EC antitrust review may have on the parties. In general, two types of direct costs exist in the merger control setting. First, costs arise from the *working hours* spent by internal employees as well as external advisors, including lawyer and consultants. Second, in case that *remedies* are required, the sale of business areas often decreases the combined entity's value. As examined in *Section 2.1.3*, factors like the short time to fulfill the remedies or the installed divestment trustee put pressure on the merging parties. This might result in a sale of the concerned business areas below their value.

Often the complexity of technologies and overlapping international market structures make the active involvement of the merging parties crucial for a correct and thorough EC investigation. This results in *working hours* spent internally and externally by both target and acquirer. Following the chronological order of investigation steps, different ways of support are required. For preparation of the filing prior to the merger notification, the involvement of internal employees as well as lawyers is unavoidable. Later, the investigation needs to be supported with additional data and documentation must be created and submitted to the EC. If remedies are necessary, they have to be prepared by employees and external advisors. Fredrik Fogelklou recalled:

“The EC’s data requests were in part really complex and difficult to fulfill. Compared to the DoJ, the process was inflexible and not tailored for the case. “

According to Haldex, the legal fees alone incurred between July 2016 and September 2017 by the Swedish company as the target did amount to SEK 91M. During the whole process, all product managers were involved. Further, in January 2017, a clean team of Haldex and KB employees was created to allow for an exchange of sensitive information. Despite the presence of staff with previous merger experience, the working hours spent were enormous. For KB as the acquirer, the

costs of the process did amount to tens of millions of euros. Haldex estimates that a number between EUR 20M and EUR 40M was most likely. The necessity to define remedies was substantially increasing the time and costs of the merger. Fredrik Fogelkou stated:

“Until May 2017, 25 full-time consultants were working on the carve-outs. 150 data requests had to be resolved, more than a thousand documents had to be uploaded. 66 hours of in-person meetings with Haldex senior management and various site visits were required.”

These results are in line with the study of PwC (2003) presented in *Section 2.2*. It needs to be considered that the costs for advisors and internal staff are increasing in the duration of the merger. Our quantitative analysis of EC merger reviews (*Section 3*) suggests that the required time has increased in the past and that especially the more complex investigations required the use of the “stop-the-clock” provision, thus exceeding the initial working days allowance. This observation makes the potentially high and duration-dependent costs more challenging since the parties cannot precisely estimate the time for which internal staff and external advisors need to be budgeted.

Additionally, Haldex indicated that the antitrust processes in the U.S. and Europe differ greatly. Hence, the bureaucratic efforts for the merging parties increase in the number of authorities, given that almost no economies of scale exist. According to Haldex’s lawyers, the U.S. investigation can easily require up to four additional months and cost USD 15M for lawyers and lobbyists involved alone.

The potential *remedies* for the merger of Haldex and Knorr-Bremse were exceptional given the large business overlaps (*see Section 7.1*). Divestments in 6 out of 8 Haldex product areas would be required in order to maintain effective competition in the markets in which both parties were competing. In this context, it needs to be considered, that for the EC to approve remedies, the divested businesses must be capable of being operated alone and being accepted among customers. For Haldex, the integrated structure of its production and R&D hindered such viable carve-outs. For instance, Haldex has different parts of the product portfolio located in one factory. Since these parts were hard to separate, successful carve-outs were less likely. Also, such a substantial number of remedies would usually reduce the target’s value. Fredrik Fogelklou explained:

“When you look at the top potential remedies it is a sizeable portion of Haldex business. And you had assets, locations, factories and R&D shared and integrated throughout the company. Carving these out to different buyers would not only destroy synergies but would make the parts less competitive than the whole.”

Besides that, for a firm involving a focus on technology, research and development, the employees are a key success factor. In such a company, the knowledge and understanding of the entire system need to be available. This fact has two important implications. First, even if Haldex could sell parts

of its product portfolio it still had to maintain the entire range of human knowledge and skills in its entity. This reduced the merger's ability to generate high costs synergies. Second, the business areas would have to be sold to an entity that is capable of operating and further developing them. Therefore, the firm taking over the divested areas would also have to employ staff whose knowledge covers the entire system. The high requirements for an EC approval of the carve-out strategy limited the number of available buyers. Thus, the generation of a favorable price for the divested areas became less likely. Difficulties with divestments of portfolio parts stemming from the importance of human capital were also emphasized by Fredrik Fogelklou:

"You need employees that understand how the whole system works.

A one-product company could never survive in the market, given the demands of the OEM segments."

In addition to the direct costs, the *indirect costs* were substantial. Among others, these costs result from the uncertainty anticipated by various stakeholders. As explained previously, for a firm being successful based on its R&D and sales, the *retention of its key employees* is crucial. Given the large portion of business potentially affected by divestments, the employees were afraid of losing their jobs in case of a merger. Also, the Haldex management felt that its staff was afraid of KB being the new owner of Haldex's operations. In order to prevent the key employees from leaving the firm, Haldex launched an executive leadership program that should incentivize its staff to stay. Such a program can be seen as an investment with the goal of generating long-term value by maintaining the knowledge and skills within Haldex. Further, Haldex capitalized on its flat hierarchy, a credible strategy and an open communication structure. CEO Ake Bengtsson did elaborate on that:

"In order to keep our key employees, it was important to demonstrate commitment with the strategy. We carried out planned investments early and made sure to communicate transparently throughout the entire process."

Moreover, the *firm's customers* and their reactions to the proposed merger may be identified as another cause of indirect costs. Given the long-term contracts common for the automotive supply industry, the loss of customers was especially painful for a firm like Haldex. Due to the importance of dual sourcing for the customers in the market, Haldex was limited in signing new contracts. With a potential future merger in mind, the customers did not want to have Haldex as a second supplier when already sourcing from KB. Together with the long-term contract practice, the time-consuming merger did put a long-term disadvantage on Haldex. Fredrik Fogelklou recalled:

"Customers were hesitating in giving us orders. For existing as well as new deal contracts, change of ownership clauses were required. The customers requested an option to exit the contract in case of a merger. Also, we had to increase warranty conditions in order to keep our customers satisfied."

Furthermore, during the course of the investigation, the *target's own strategic flexibility* was limited. During the entire process Knorr-Bremse was still Haldex's competitor. The fact that data has been continuously exchanged and Haldex's sites have been visited, impeded Haldex's own focus and strategy. Also, Haldex could not pursue new development projects or start a cooperation with any third party given its potential acquisition. Fredrik Fogelklou pointed out:

"We had to put our own M&A activities on hold - you cannot buy anything when you might be bought yourself."

In summary, the example of the examined merger illustrates that large direct as well as indirect costs may arise from an ongoing EC merger investigation. Thereby, both types of costs were increasing in the number of the investigation's working days. The direct costs were stemming from internal and external working hours or losses on remedies. The indirect costs arose from an increasing uncertainty perceived by various stakeholders as well as the target's limited strategic flexibility and focus. Here, it needs to be mentioned that the direct costs were incurred by both merging parties, while the indirect costs did mainly affect the target.

7.3 Regulatory Weaknesses and Extraordinary Factors Aggravating the Merger Process

The proposed transaction of Haldex and Knorr-Bremse did reveal weaknesses in the EC's regulations as well as different case-specific circumstances that further complicated the process. First, we are going to elaborate on the EC-related factors before proceeding with the internal ones.

The case indicated substantial *weaknesses within the EC regulations* that increased the duration of the process, thus fostering the uncertainty for the firms and their stakeholders. As our quantitative analysis revealed, the investigations often take longer than initially prescribed in the regulations. Based on the Haldex case, we identified two potential causes of this observation.

First, as indicated by Haldex, the parties had to fulfill *unnecessarily comprehensive and non-flexible data requests*. In contrast to the U.S. antitrust process, the European one was perceived more process-based and less adaptable to the case. For example, Haldex had to provide very detailed contact data on its customers. In absence of a customer relationship system, the preparation of these data was highly time-consuming without adding a lot of relevant information to the process. Fredrik Fogelklou did elaborate on that and compared the EC merger control to the DoJ process:

"The European process and its data requests are less flexible than the American ones. For instance, they asked for customer contact details for every product, in every segment, in every country. In some cases, this entailed contact details to customers who were buying only a few thousand euros of products. As a result, we felt some requests were unnecessarily time-consuming. Furthermore, despite the EC's set deadlines, regulations are missing between the first bid and the Phase I filing. This is where the EC regulations fail."

This insight leads to the second identified weakness in the EC regulations. Unlike the post-notification part of the EC investigation, the *pre-notification phase is lacking set deadlines*. When interacting with the EC, this phase is used by the merging firms to prepare a joint filing. In the case of Haldex and Knorr-Bremse it took the two firms nearly nine months after the first bid to submit the official filing to the authority. This period is not regulated, and the EC does only start to investigate after an official notification has been made. Just like the post-notification Phase I and Phase II, the pre-notification phase involves direct and indirect costs to the merging firms. For customers and employees, it increases the uncertainty resulting from the merger. Additionally, for the target it reduces its strategic flexibility. Ake Bengtsson identified this as a main weakness and demanded:

“There should be a requirement on the bidder to submit its filing to the EC after a specific period of time.”

When analyzing the Haldex case, we made an observation challenging the findings and assumptions of previous authors. Heim et al. (2015) state that lengthy investigations were in part caused by lacking industry-experience and skills within the EC. In contrast, Fredrik Fogelklou was impressed by the investigators’ quick understanding of the complex industry mechanics present in the case. In this context, the regulatory weaknesses identified by us add a new perspective on the causes of lengthy and burdensome investigation process, compared to the existing literature.

However, regulation weaknesses were not the sole driver for process complications. When analyzing the transaction, we realized some *case-specific circumstances* that hampered the process. First, Haldex indicated that KB as the acquirer did not communicate sufficiently with Haldex. The EC antitrust process requires one joint filing of both parties which makes their collaboration crucial. However, it took until the Clean Team was set up in January 2017 before an efficient cooperation between the parties was achieved. Furthermore, KB had some delays throughout the process. For example, the remedies were not prepared in time, hence putting even more pressure on the process given the set timeframes of the EC and the Swedish 9-month rule. Another aggravating issue was that Haldex’s ownership structure changed during the process. Haldex’s management stated that a large proportion of its new shareholders were hedge funds, with rather short-term objectives.

In summary, the case indicated some internal and external factors that severely impeded the merger. Insufficient communication between the merging firms, delays when preparing remedies together with short-term oriented shareholders were present. Combined with unnecessarily extensive data requests and weak regulations allowing for a slowly progressing pre-notification phase, this significantly aggravated the merger process. However, experiences from the target identified the EC’s regulations, not its staff, to trigger the observed inefficiencies.

8 Conclusion

In previous literature and media, the EC merger control process has widely been described as a burdensome necessity. Without any doubt, merger activity can create value by enabling progress in R&D or generating economies of scale. However, the maintenance of healthy competition in the market is crucial to protect consumers. Therefore, the EC merger control regulations and procedures fulfill the task of preventing the emergence of a dominant player. Given the complexity of today's global business relationships together with the ongoing technological change, some investigations may be difficult to solve, hence resulting in lengthy merger reviews. For both target and acquirer, large direct costs stemming from internal employee hours and external legal support are the result. Further, especially the target faces indirect costs caused by decreased strategic flexibility and increasing uncertainty perceived by stakeholders like target employees or customers.

Nevertheless, given the fact that various parties with divergent interest are taking an active part in a merger investigation, it is difficult to identify the true underlying cause of delays in merger investigations. Besides that, without being actively involved in a merger investigation, one can hardly gain actual insights into the potential effects of such a process on the merger parties. Therefore, we aimed at contributing to academic research on this important matter by developing and analyzing the case of the failed acquisition of Haldex by Knorr-Bremse. We decided to conduct our research and analysis with the final purpose of answering the following research questions:

Did the potential competition consequences of the Haldex merger justify an EC investigation?

How did the EC merger control process impact the Haldex merger as well as the merger parties?

Which regulatory or case specific factors did aggravate the merger process?

As a basis, we analyzed existing literature on EC antitrust processes. Following that, we conducted a quantitative analysis using a recent sample of EC reviews. The analysis did address two goals. First, we wanted to verify the hypotheses and observations presented in previous studies. Second, we wanted to get an understanding of the investigations' durations since this factor largely determines the direct and indirect costs related to a merger investigation. As our main finding, we saw that only a few mergers required an in-depth investigation and that even fewer mergers got finally prohibited. However, many reviews could not be completed within the initially prescribed timeframes, thus increasing the merging firms' uncertainty and costs, and limiting their flexibility.

The examination of the Haldex merger as an illustrative case verified the previous hypothesis that the merger review's duration drives its costs. Especially, it clarified that for the target the indirect costs can be significant. Despite the advantages of the process-oriented EC regulations with their set timeframes, we revealed several weaknesses. First, compared to the U.S. regulations, the EC

procedure was lacking flexibility. As a result, the companies had to face unnecessary data requests, which consumed a lot of time. Hence, internal costs and external legal fees as well as foregone business opportunities increased. Second, we identified the non-regulated pre-notification phase as one of the main weaknesses of the EC antitrust process. Since no time limit for the phase preceding the official filing exists, the target's uncertainty after the acquirer's bid can theoretically increase for a long time until the acquirer decides to file with the EC. Fredrik Fogelklou captured the essence:

"Weaknesses in the EC antitrust regulations did harm us in several ways. The non-regulated pre-notification phase allowed the acquirer to not act for a long time. The whole process stopped us from getting new deals and we lost our freedom to operate in the market."

Besides the regulatory factors, several case-specific factors did aggravate the investigation process. For instance, insufficient communication between the merger parties caused significant delays, especially in combination with the joint filing required by the EC. Furthermore, changes in the ownership structure and the acquirer's lack of focus on the review progress did complicate the merger.

Regarding *directions for future research* we identified two main areas. First, for the *specific case* of Haldex and KB, it could be examined how the parties and the competitive landscape developed over a longer horizon. Especially, the review's effects on Haldex are interesting. The management indicated that given the industry structure, the loss of customers and employees, hence foregone business opportunities, would harm Haldex in the long-term. It could be tested whether the process weakened Haldex so much, that it could no longer compete effectively, contradicting the EC's goal of protecting competition. Further, Haldex, especially at its currently low trading value, could again become an acquisition target. Here, it could be examined whether the unsuccessful merger control process left Haldex vulnerable to a potential "bargain buy", ultimately hurting the shareholders.

Second, we recognize that our results might be subject to a bias from the covered Haldex case. To *reinforce our insights on our general research topic*, one could examine the impacts of the EC antitrust process for another relevant case or in a survey-like setting. Also, we identified two limitations of our case study. First, the Haldex case did not actually pursue the full investigation but got withdrawn during Phase II. Hence, the potential impact of the EC review might be even larger than we could visualize within our case study. Second, KB was not available for an interview, so that the acquirer's perspective could not fully be incorporated. One could examine a suitable research case to address these limitations, thus *extend our insights* on the impacts of EC merger control. Lastly, the information to evaluate the aforementioned "bargain buys" after failed merger clearance could be obtained with moderate effort. Accordingly, one could pursue a quantitative analysis on this topic for a larger data sample than one or several cases.

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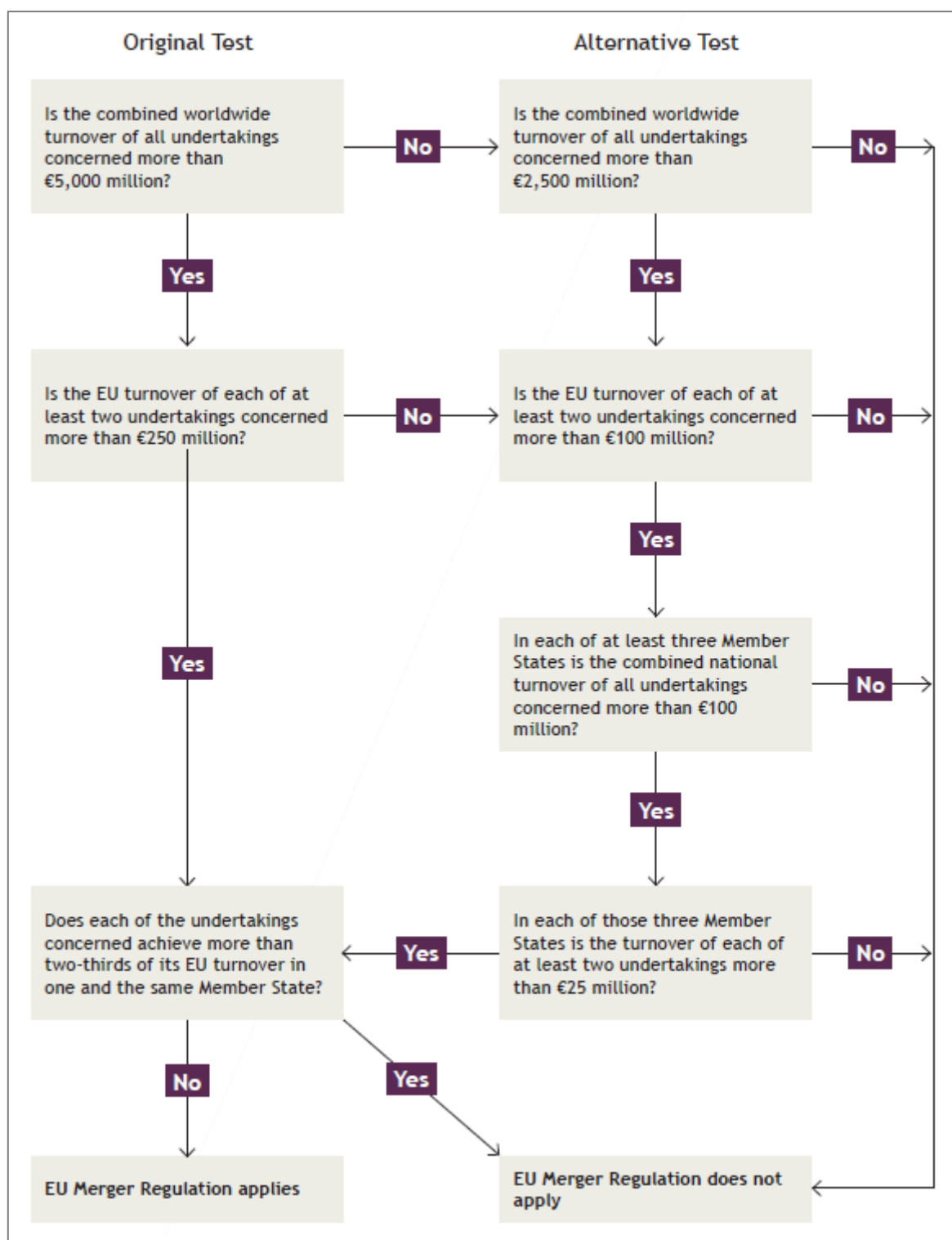
Appendix

Appendix 1: Most Relevant Events of the Haldex Case

Date	Event
14.07.2016	Announcement of first SAF-Holland offer (SEK 94.42)
04.08.2016	Announcement of first ZF offer (SEK 100.00)
05.09.2016	Announcement of first Knorr-Bremse offer (SEK 110.00)
14.09.2016	Announcement of increased ZF offer (SEK 110.00)
16.09.2016	Announcement of increased Knorr-Bremse offer (SEK 125.00)
16.09.2016	Announcement of increased ZF offer (SEK 120.00)
05.10.2016	Withdrawal of ZF offer
08.11.2016	Recommendation of Knorr-Bremse offer by Haldex Board
07.12.2016	End of first Knorr-Bremse acceptance period
09.02.2017	First extension of acceptance period until 16th of June 2017
25.04.2017	Second extension of acceptance period until 26th September 2017
01.06.2017	Notification of the merger to the EC
29.06.2017	Support withdrawal for Knorr-Bremse offer by Haldex Board
24.07.2017	EC Phase I decision: Initiation Phase II
17.08.2017	Extraordinary General Meeting
06.09.2017	SSC rejection of further extension of acceptance period
19.09.2017	Withdrawal of Knorr-Bremse offer

Appendix 1 [Source: Own compilation]

Appendix 2: Original and Alternative Test for EC Merger Regulation Applicability



Appendix 2 [Source: Slaughter and May, 2018]

Appendix 3: EC Merger Case Database used as Data Source for Quantitative Analysis

Policy Area	Case Number ▲	Member State	Last Decision Date	Title
Merger	M.8222			KNORR-BREMSE / HALDEX
Hide details				
M.8222 KNORR-BREMSE / HALDEX				
Notification on:		01.06.2017		
Provisional deadline:		30.11.2017 Deadline suspended under Article 11(3) [date may differ from the Article 11(3) decision date] from 22.08.2017 Commitments submitted in N/1 on 30.06.2017		
Prior publication in Official Journal:		C187 Of 13.06.2017		
Concerns economic activity (NACE):		C.29.3 - Manufacture of parts and accessories for motor vehicles		
Regulation:		Council Regulation 139/2004		
Decision(s):		19.09.2017: Aborted / withdrawn C332 Of 04.10.2017 24.07.2017: Art. 6(1)(c) C250 Of 01.08.2017 Press Release: IP/17/2126		
Relation with other case(s):		(none)		
Other case related information(s):		Section 1.2 of Form CO: en (01.06.2017) published on 06.06.2017		
Related link(s):		(none)		

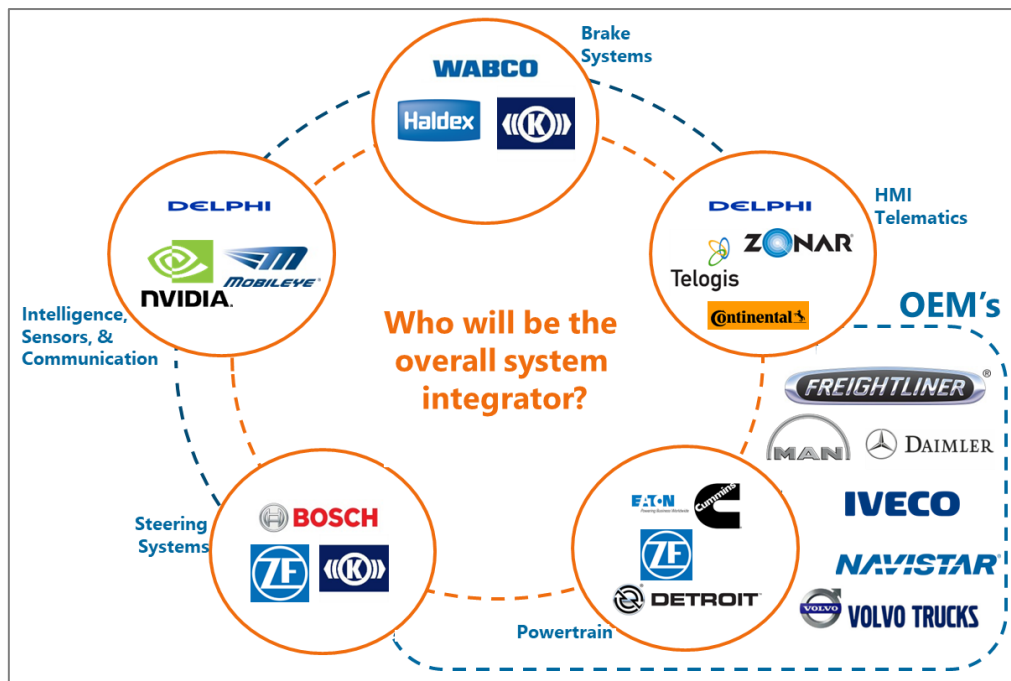
Appendix 3 [Source: EC merger case database, 2018]

Appendix 4: Illustration of Different Commercial Vehicle Types



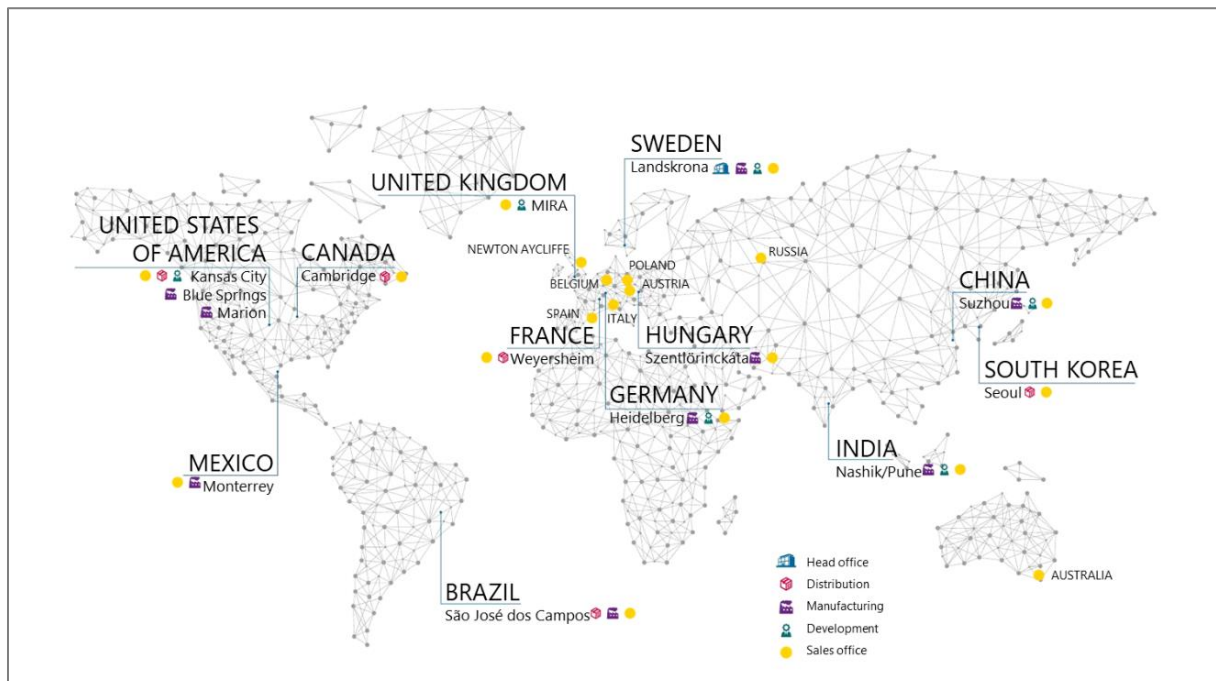
Appendix 4 [Source: Haldex AB, 2018]

Appendix 5: Illustrated System Integration for Automated Trucks and Relevant Firms



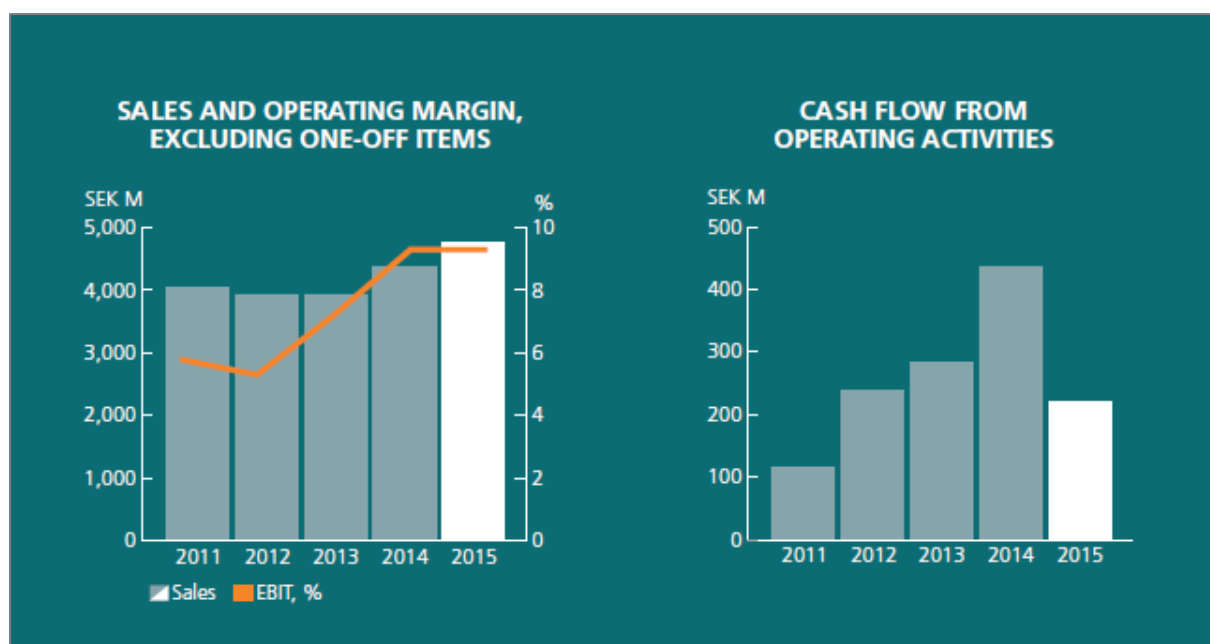
Appendix 5 [Source Haldex AB, 2018]

Appendix 6: Haldex Facilities Worldwide



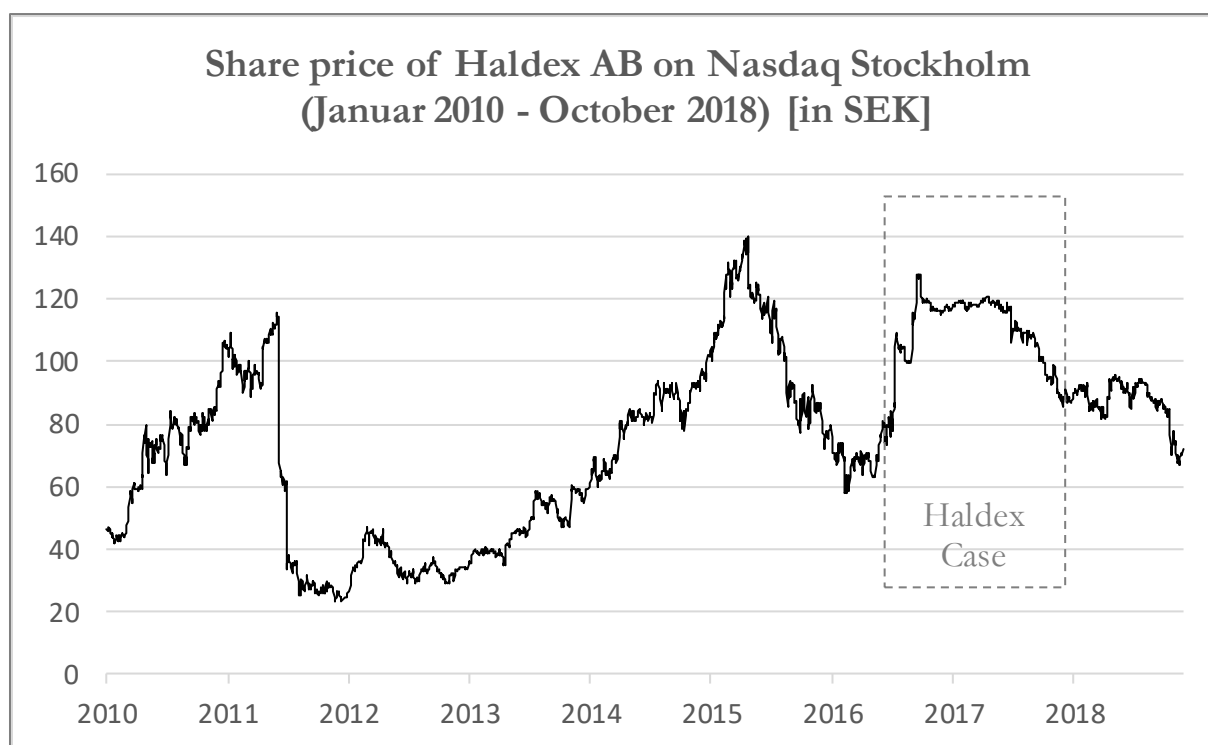
Appendix 6 [Source: Haldex AB, 2018]

Appendix 7: Haldex Sales, Operating Margin and Cash Flow Development, 2011 to 2015

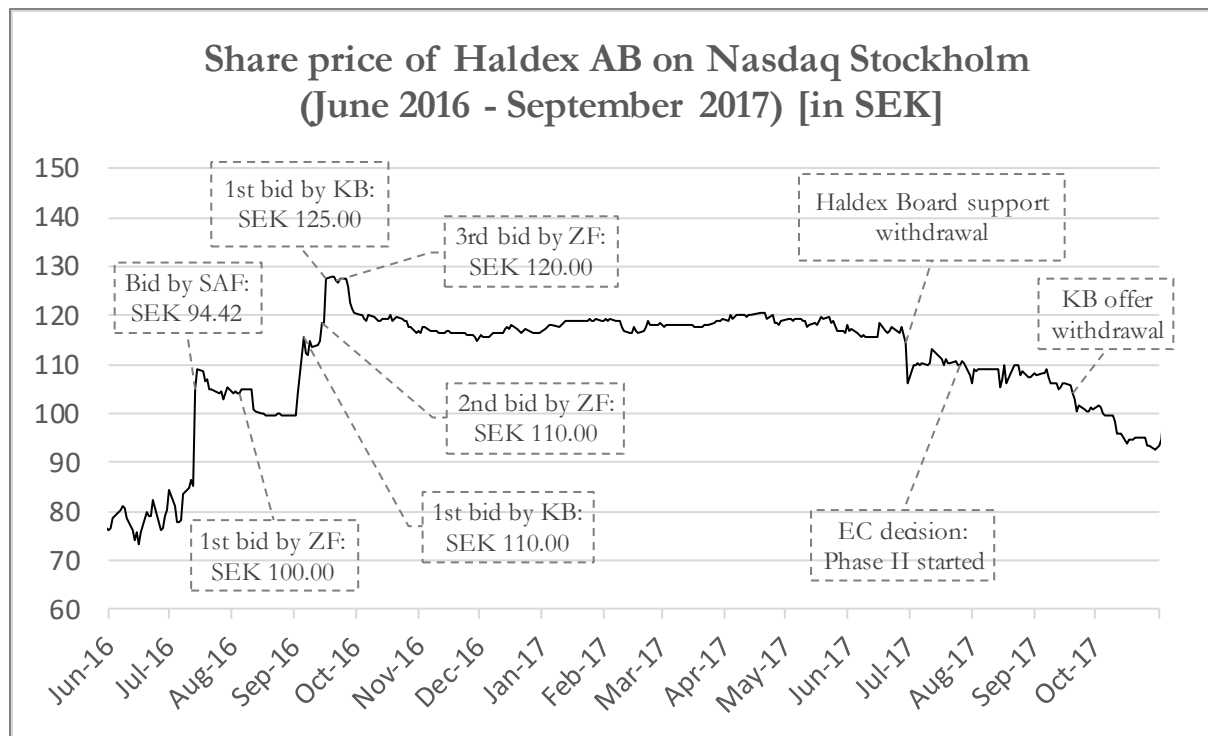


Appendix 7 [Source: Haldex AB, Annual Report 2015]

Appendix 8: Haldex Share Price Development, 2010 to 2018

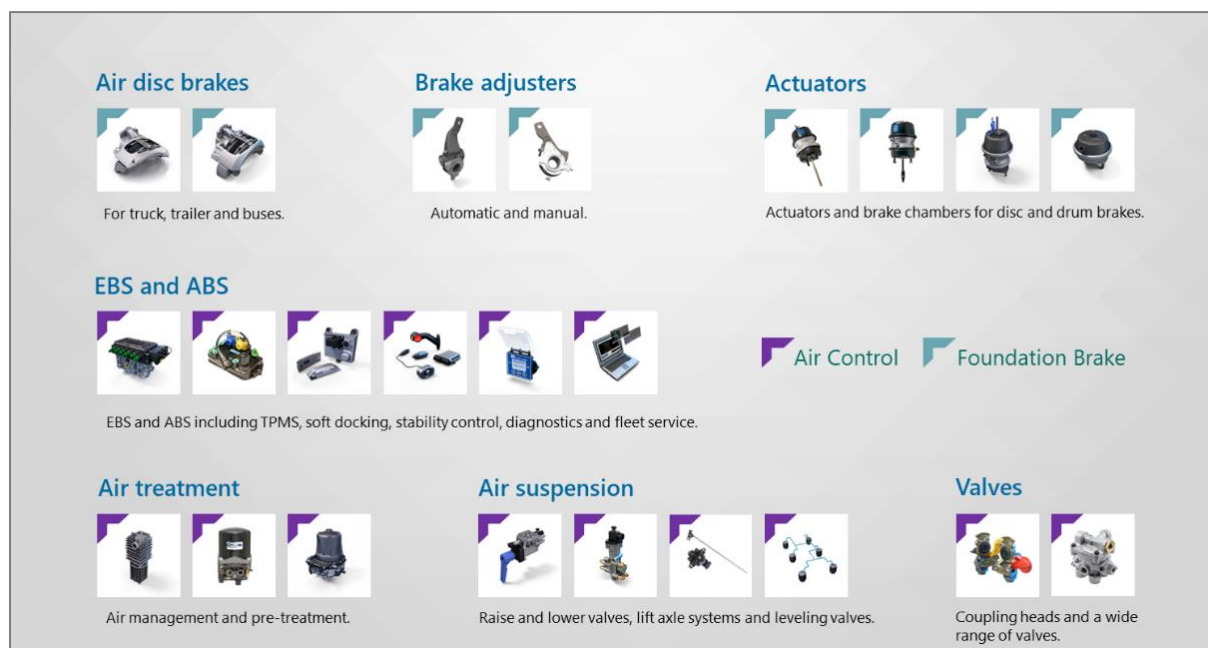


Appendix 8A [Source: Own illustration based on data from Nasdaq Stockholm]



Appendix 8B [Source: Own illustration based on data from Nasdaq Stockholm]

Appendix 9: Haldex Product Areas



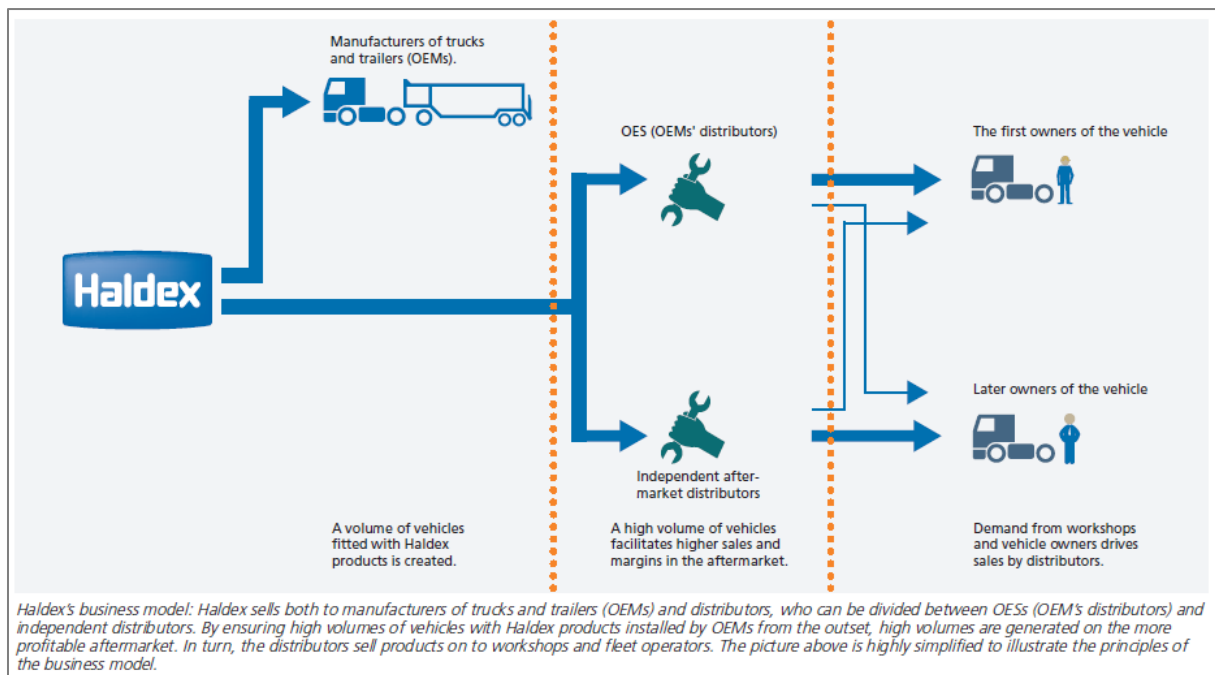
Appendix 9 [Source: Haldex AB, 2018]

Appendix 10: Haldex Product Areas with Leading Market Positions

	Europe	North America	South America	Asia
Brake adjusters	1	1	1	2
Disc brakes (trailer/bus)	2 ¹⁾	—	—	3 ²⁾
Actuators	5	1	—	—
ABS/EBS (trailer)	3	3	1	—
Air suspension (trailer)	1	3	1	—
1) Trailer 2) Bus				

Appendix 10 [Source: Haldex AB, Annual Report 2015]

Appendix 11: Haldex Business Model and Customer Groups



Appendix 11 [Source: Haldex AB, Annual Report 2015]

Appendix 12: Haldex Main Customers



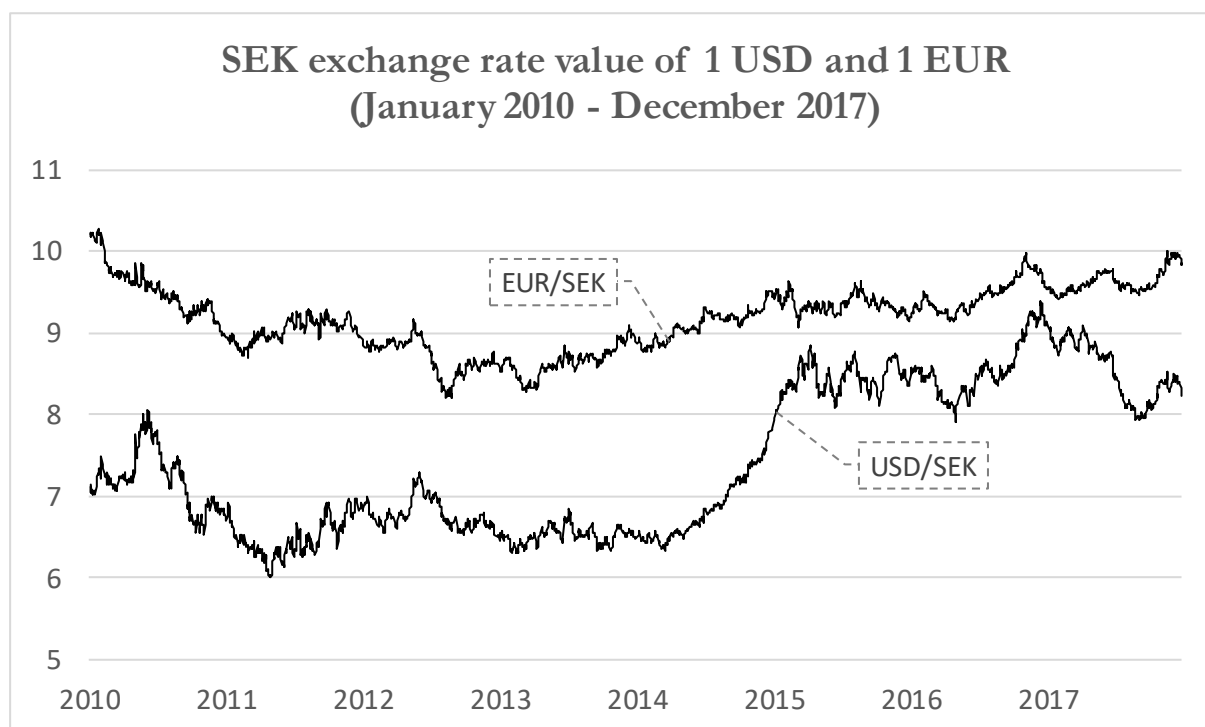
Appendix 12 [Source: Haldex AB, 2018]

Appendix 13: Haldex 10 Largest Shareholders as of the 31st December 2015

Shareholder	Number of shares	% of votes and capital
Skandinaviska Enskilda banken	2,574,573	5.8
Afa Försäkring	2,114,791	4.8
Carnegie fonder	1,604,190	3.6
Handelsbanken Fonder	1,504,281	3.4
CBNY-NORGES BANK	1,396,772	3.2
CBNY-DFA-INT SML CAP V	1,170,266	2.6
Försäkringsaktiebolaget, Avanza Pension	1,048,365	2.4
Enter Fonder	991,741	2.2
Didner & Gerge Fonder Aktiebolag	917,661	2.1
Länsförsäkringar Fondförvaltning AB	683,580	1.6
Total, ten largest shareholders	14,006,220	31.7
Others	30,198,045	68.3
Haldex AB	11,705	0.0
Total	44,215,970	100.0

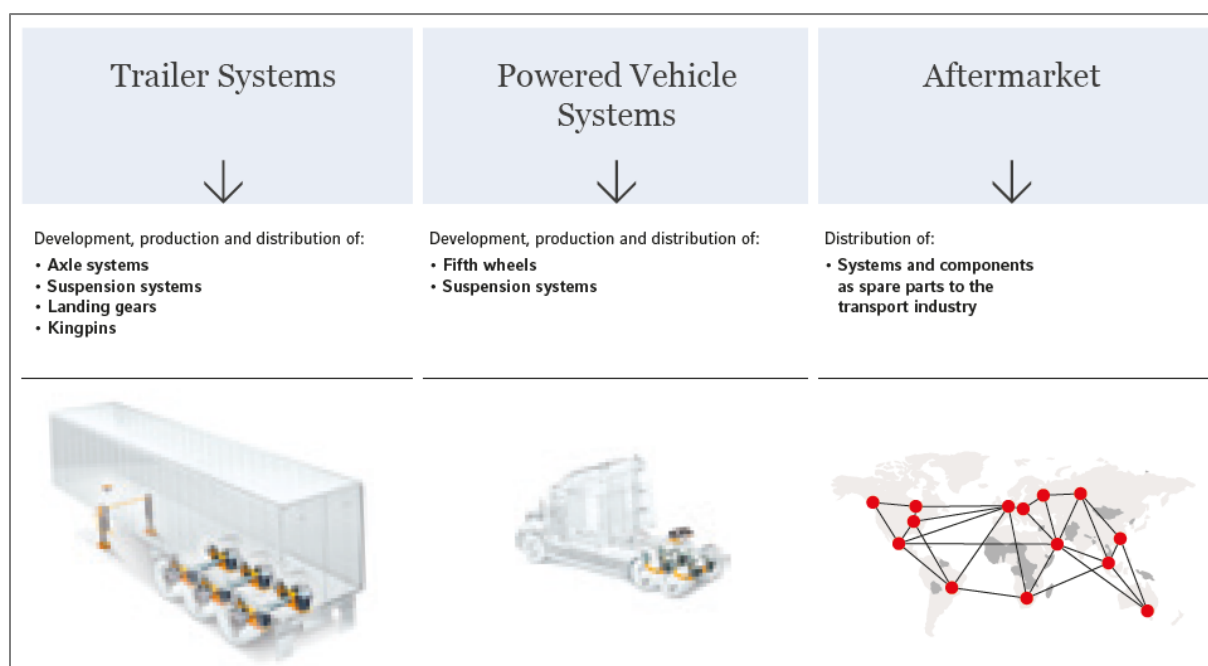
Appendix 13 [Source: Haldex AB, Annual Report 2015]

Appendix 14: Exchange Rate Development of USD/SEK and EUR/SEK, 2010 to 2017



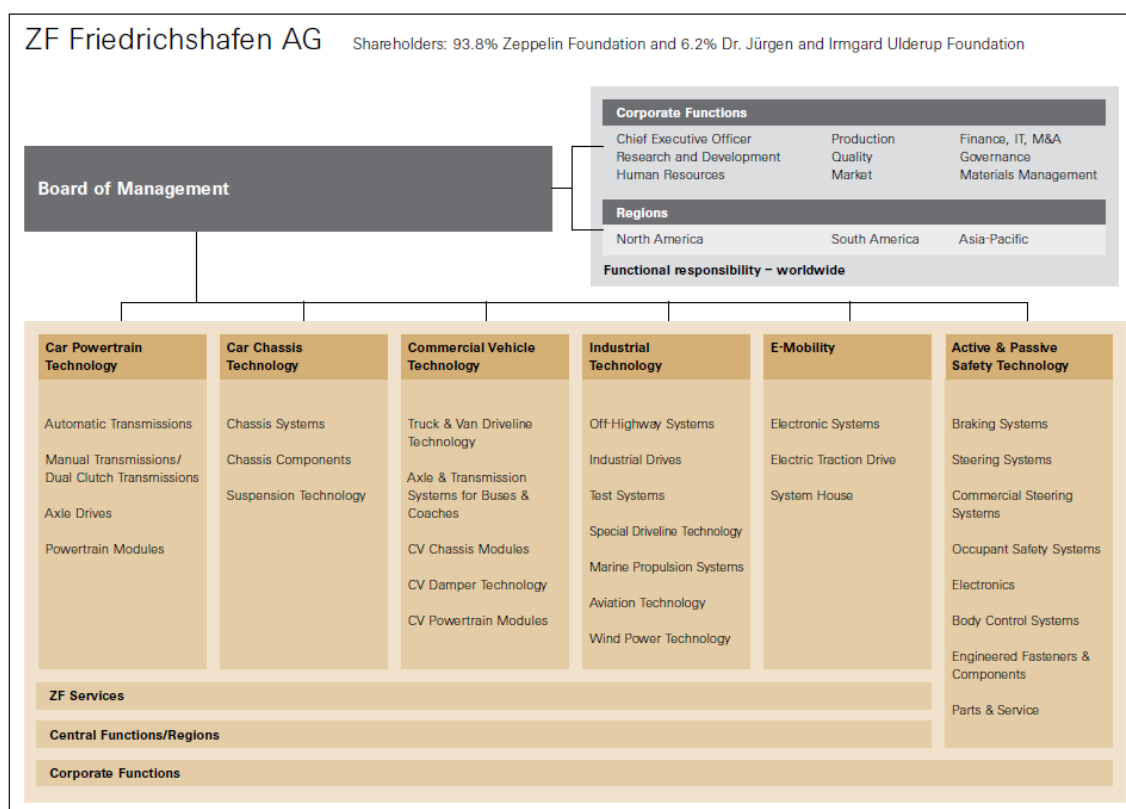
Appendix 14 [Source: Own illustration based on data from Sveriges Riksbank, 2018]

Appendix 15: SAF-Holland Business Units and Product Groups



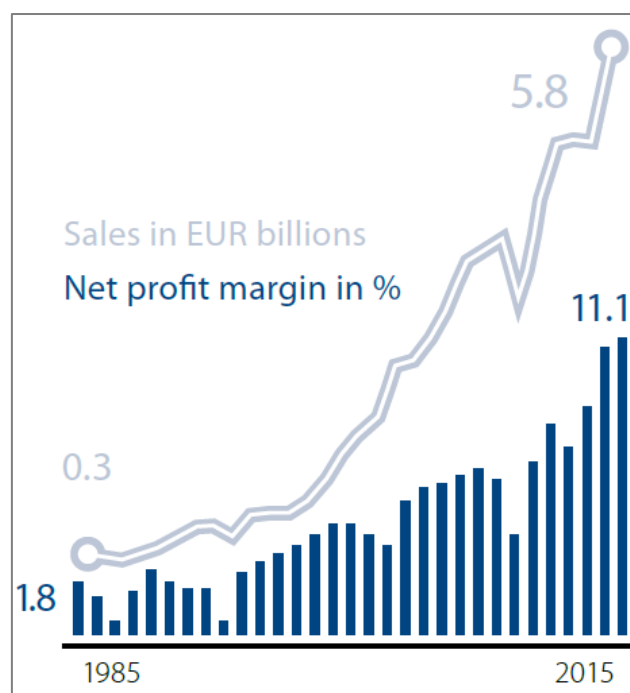
Appendix 15 [Source: SAF-Holland S.A., Annual Report 2015]

Appendix 16: ZF Friedrichshafen Business Division Structure



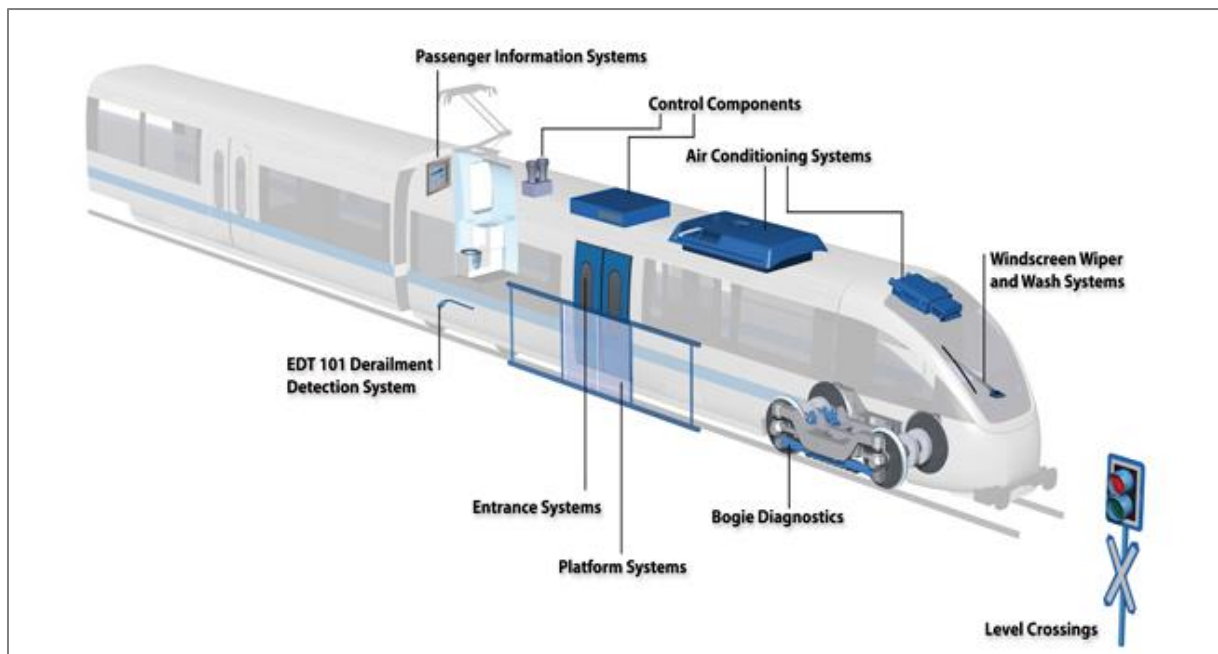
Appendix 16 [Source: ZF Friedrichshafen AG, Annual Report 2015]

Appendix 17: Knorr-Bremse Historical Sales and Margin Development, 1985 to 2015

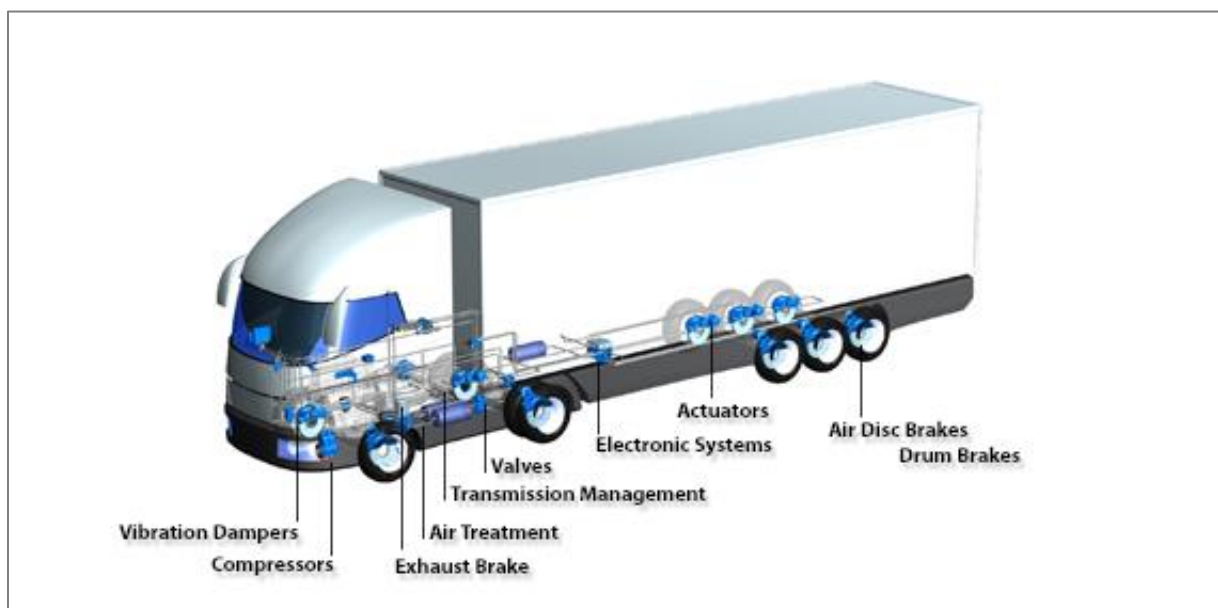


Appendix 17 [Source: Knorr-Bremse AG, Annual Report 2015]

Appendix 18: Knorr-Bremse Technology Solutions for Rail and Commercial Vehicles

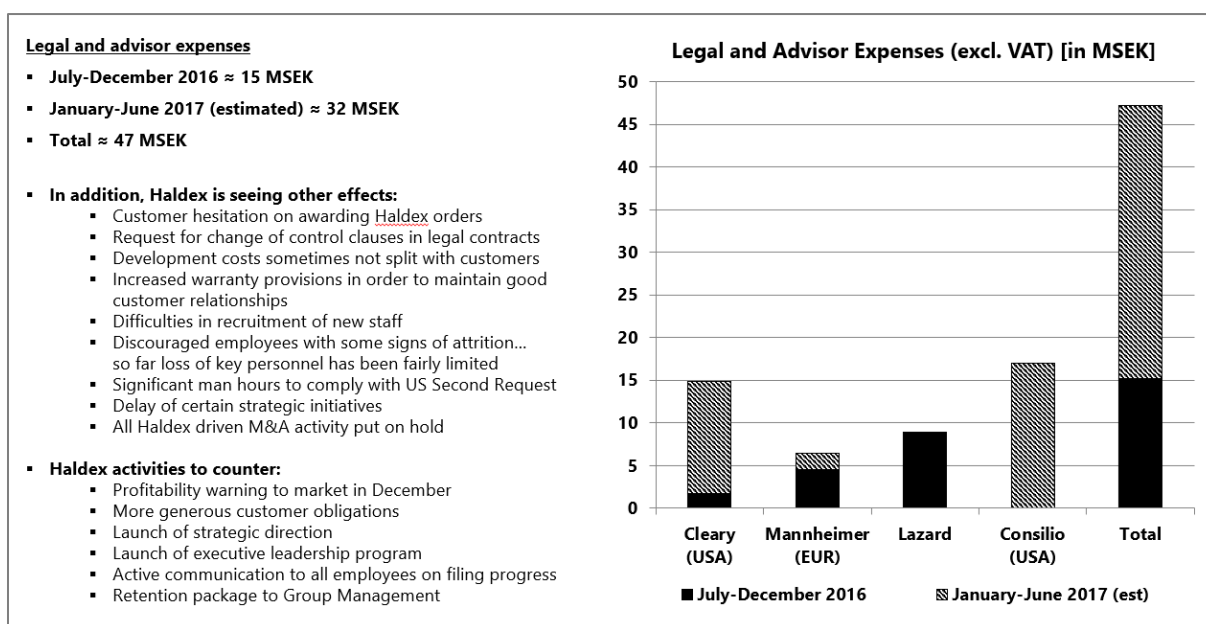


Appendix 18A [Source: Knorr-Bremse AG, 2018]



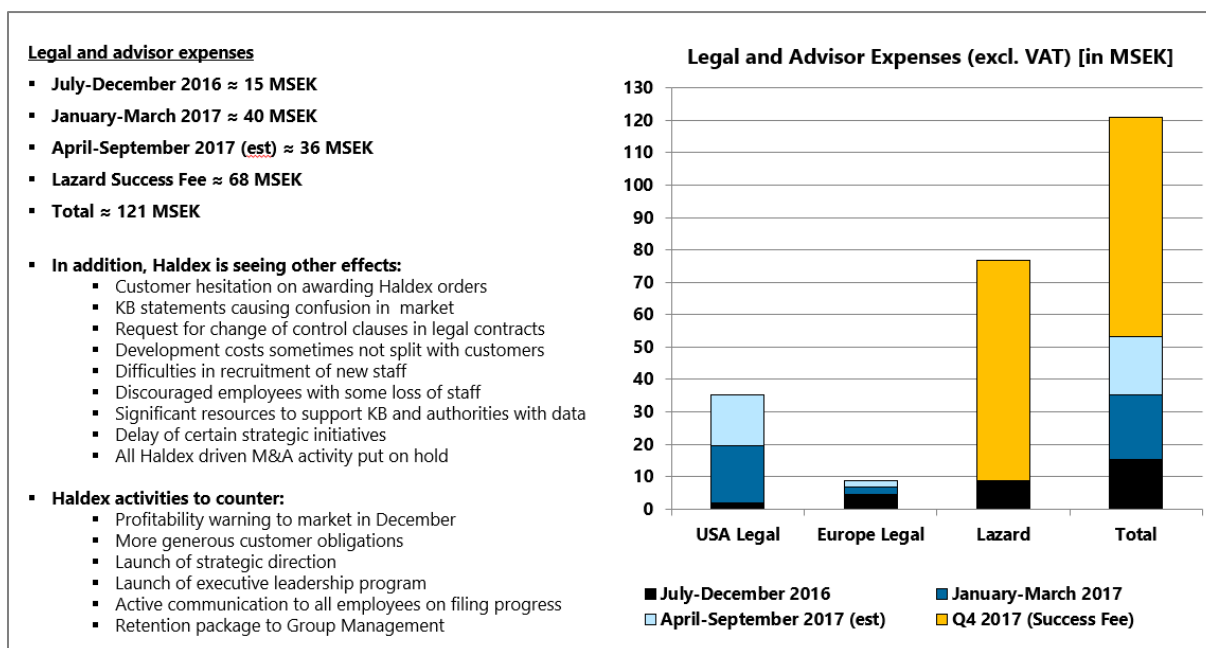
Appendix 18B [Source: Knorr-Bremse, 2018]

Appendix 19: Haldex Estimated Costs for Takeover Process (Board update on 09.02.2017)



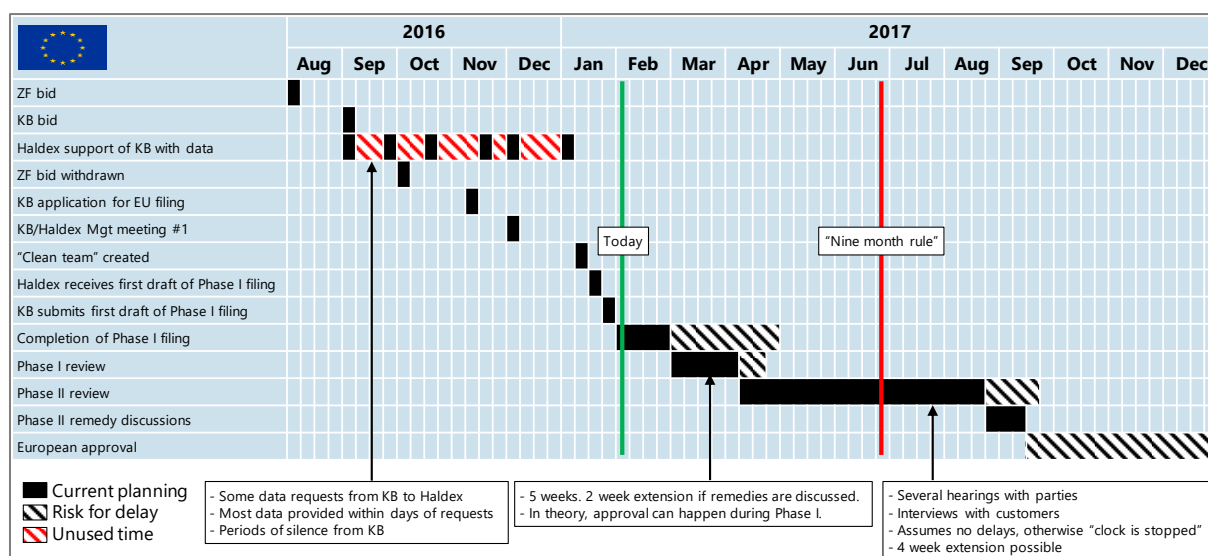
Appendix 19 [Source: Haldex AB, 2017]

Appendix 20: Haldex Estimated Costs for Takeover Process (Board update on 04.05.2017)



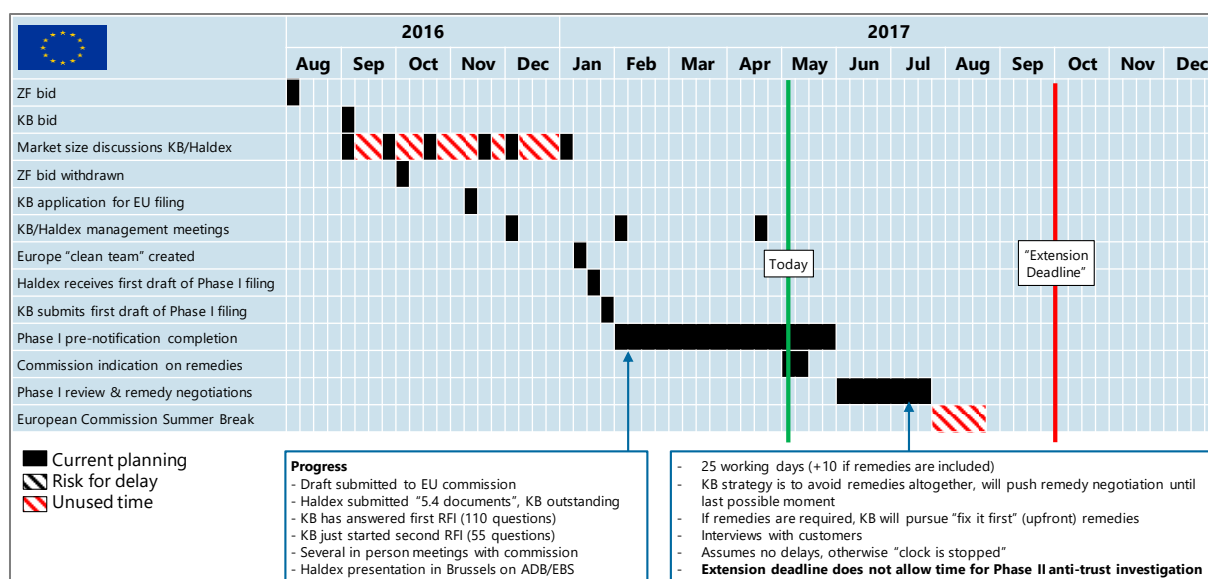
Appendix 20 [Source: Haldex AB, 2017]

Appendix 21: Haldex EC Merger Control Time Plan (Board update on 09.02.2017)



Appendix 21 [Source: Haldex AB, 2017]

Appendix 22: Haldex EC Merger Control Time Plan (Board update on 04.05.2017)



Appendix 22 [Source: Haldex AB, 2017]

M.8222 - KNORR-BREMSE / HALDEX

SECTION 1.2

Description of the concentration

- (1) Knorr-Bremse AG intends to acquire Haldex Aktiebolag by way of a public takeover offer. The envisaged acquisition is conditional on the receipt of necessary merger control clearance in the EEA and by other competition authorities outside the EEA.
- (2) Knorr-Bremse AG is mainly active in the area of brake components, door systems and other equipment for railway and commercial vehicles. In its commercial vehicle division, Knorr-Bremse manufactures brake systems mainly for trucks, buses and agricultural vehicles as well as electronic control, driver assistance and air treatment systems. Other product areas include powertrain-related solutions, including torsional vibration dampers for diesel engines.
- (3) Haldex is a manufacturer of brake products and air suspension control systems for commercial vehicles and trailers. Its business activities comprise foundation brake products, including – inter alia – slack adjusters, as well as other wheel-end components, ABS, EBS and air treatment components.
- (4) The envisaged acquisition of Haldex Aktiebolag will enable Knorr-Bremse AG to respond to the market trend of automated and autonomous driving and to become a serious competitor in this segment, thus bringing automated driving for truck/trailer combinations to the next level. The combination of Knorr-Bremse AG's and Haldex Aktiebolag's R & D capacities, experienced human resources, and economies of scale will enable the company to foster innovation and to keep pace with customers' demands and its strong competitors in this new business segment. Through the acquisition of Haldex Aktiebolag, Knorr-Bremse AG will be better able to support the truck & trailer manufacturers with different levels of automated driving functions.

Appendix 23 [Source: EC merger case database, 2017]

Appendix 24: Haldex Integrated Factory Structure

Production site	Markets served	Production Model	Product
Monterrey, Mexico	North America	Integrated	ABS Actuators Air Treatment Valves Air Suspension Total
Blue Springs, Mexico	North America	Independent	Slack Adjusters Total
Heidelberg, Germany	Europe	Integrated	EBS Air Suspension Total
Szentlőrincáta, Hungary	Europe	Integrated	Actuators Air Disc Brakes Air Treatment ABS Valves Total
Landskrona, Sweden	Europe	Integrated	Slack Adjusters Air Disc Brakes Total

Appendix 24 [Source: Haldex AB, 2016]

Appendix 25: Haldex Integrated Research & Development Structure

R&D site	Products developed
Mira, UK	ABS, EBS, Vales, Air Suspension
Heidelberg, Germany	Valves, Air Suspension
Landskrona, Sweden	Air Disc Brake, Slack Adjusters, Actuators
Pune, India	Application Design Actuators, Valves, Air Suspension, Slack Adjusters
Kansas City, USA	Actuators, Application Design Valves, Slack Adjusters, Air Disk Brake
Shanghai, China	Application Design Slack Adjusters, Valves, Air Suspension, Air Disc Brake

Appendix 25 [Source: Haldex AB, 2016]

Appendix 26: Haldex Invitation to the EGM, Proposed Agenda

Proposal for agenda

1. Opening of the meeting and election of chairman of the meeting.
2. Drawing up and approval of the voting list.
3. Election of two persons to approve the minutes.
4. Determination of whether the meeting has been properly convened.
5. Approval of the agenda.
6. Resolution on proposal from Knorr-Bremse AG that the General Meeting resolves to support and endorse, and to instruct the Board of Directors of Haldex AB to promptly, effectively and loyally execute the General Meeting's resolution to support and endorse, Knorr-Bremse's application to the Swedish Securities Council regarding an extension of the acceptance period of Knorr-Bremse's public offer to the shareholders of Haldex, as well as to support and cooperate with Knorr-Bremse, and to instruct the Board of Directors of Haldex to promptly, effectively and loyally execute the General Meeting's resolution to support and cooperate with Knorr-Bremse, in the preparation of notifications to merger control authorities regarding Knorr-Bremse's acquisition of Haldex and the preparation of any remedies relating thereto.
7. Closing of the meeting.

Appendix 26 [Source: Haldex AB presse release, 11.07.2017]

Appendix 27: EC Decision after Phase I

C 250/20

EN

Official Journal of the European Union

1.8.2017

Initiation of proceedings

(Case M.8222 — Knorr-Bremse/Haldex)

(Text with EEA relevance)

(2017/C 250/02)

On 24 July 2017, the Commission decided to initiate proceedings in the abovementioned case after finding that the notified concentration raises serious doubts as to its compatibility with the internal market. The initiation of proceedings opens a second phase investigation with regard to the notified concentration, and is without prejudice to the final decision on the case. The decision is based on Article 6(1)(c) of Council Regulation (EC) No 139/2004 ⁽¹⁾.

The Commission invites interested third parties to submit their observations on the proposed concentration to the Commission.

In order to be fully taken into account in the procedure, observations should reach the Commission not later than 15 days following the date of this publication. Observations can be sent to the Commission by fax (+32 22964301), by email to COMP-MERGER-REGISTRY@ec.europa.eu or by post, under reference M.8222 — Knorr-Bremse/Haldex, to the following address:

European Commission
Directorate-General for Competition
Merger Registry
1049 Bruxelles/Brussel
BELGIQUE/BELGIË

⁽¹⁾ OJ L 24, 29.1.2004, p. 1 (the 'Merger Regulation').

Appendix 27 [Source: EC merger case database, 2017]

Appendix 28: Haldex Contributions to the Antitrust Clearance Process

- Haldex has provided the DoJ with 307,000 documents.
- Haldex has answered extensive requests for information from the EC
- Haldex has participated in meetings with the EU Commission and the DOJ.
- Haldex has assisted Knorr-Bremse in the preparation of its filing with the EC
- Haldex has prepared and provided Knorr-Bremse's "clean-team" with access to a virtual data room made up of more than 1,000 documents.
- Haldex has facilitated on site visits at Haldex' plants for Knorr-Bremse's advisers.
- Haldex has assisted Knorr Bremse's advisers in the preparation of carve out design documents, i.e. a written analysis describing the divestment of product areas. This analysis comprises several hundreds of pages.
- Haldex has facilitated several expert sessions where employees of Haldex has answered questions from Knorr Bremse's advisers.
- Haldex has facilitated Q&A meetings, where Haldex' management has answered questions form KB's advisers (approximately 125 hours).
- Haldex has participated in meetings with potential purchasers of assets from Haldex.
- Haldex has provided potential purchasers access to a virtual data room with extensive information about the product areas of interest to each specific buyer.

Appendix 28 [Source: Haldex AB press release, 02.08.2017]

Appendix 29: Haldex Chairman Jörgen Durban at the Haldex EGM

Illustrating: The low success probability vs. the severe potential harm



Appendix 29 [Source: Sydsvenskan, 19.09.2017]

Appendix 30: Nasdaq Takeover Rules (II.7 and II.24) before and after “Lex Haldex“

Acceptance period

II.7 The acceptance period for the offer must be not less than three weeks and not more than ten weeks. The period may not start to run until the offer document has been published in the manner stipulated in the Financial Instruments Trading Act (SFS 1991:980). Section III.2 states that in certain cases the acceptance period must be not less than four weeks.

The acceptance period may be extended if the offeror has reserved the right to do so or if payment of consideration to those who have already accepted the offer is not delayed by the extension. Payment of the consideration may only be postponed if a reservation thereon is specified. The acceptance period may not be extended for an indefinite time.

The total acceptance period may not exceed three months. If the offer is conditional on official authorisations/regulatory clearances being obtained, the total acceptance period pending such authorisation/clearance may not exceed nine months.

Notwithstanding the above, the acceptance period may be extended without limitation once the offeror has completed the offer.

Limitations placed on the offeror's right to make a new offer

II.24 If an offer that has been made is not completed, the offeror or a party closely related to the offeror according to section I.3 may not, earlier than 12 months thereafter, make an offer to acquire shares in the offeree company or acquire shares in the offeree company which thereby triggers a requirement to make a mandatory offer pursuant to Chapter 3 of the Stock Market (Takeover Bids) Act (SFS 2006:451). This also applies to a party closely related to the offeror when the offer was made according to section I.3. The first and second sentences do not apply if the offeror makes a new offer which is recommended by the board of the offeree company.

Appendix 30A [Source: Nasdaq Takeover Rules, 2015]

Acceptance period

II.7 The acceptance period for the offer is to be no shorter than three weeks and no longer than ten weeks. The period may not commence until the offer document has been published in the manner stipulated in the Swedish Financial Instruments Trading Act (SFS 1991:980). Rule III.2 states that in certain cases the acceptance period is to be no shorter than four weeks.

The acceptance period may be extended if the offeror has reserved the right to do so or if payment of consideration to those who have already accepted the offer is not delayed by the extension. Payment of the consideration may only be postponed if a reservation to that effect has been stipulated. The acceptance period may not be extended indefinitely.

The total acceptance period may not exceed three months. If the offer is conditional on regulatory approvals being obtained, the total acceptance period pending such approval may, however, be extended to up to nine months. **If it is clear that the required approvals will not have been granted by the end of the nine-month period, the offeror is obliged to withdraw the offer without delay or to request a dispensation to extend the acceptance period beyond the nine-month deadline. The offeror is to announce which of these options it chooses as soon as possible. If the offeror chooses to apply for a dispensation but no such dispensation is granted, the offeror is to withdraw the offer as soon as possible.**

Notwithstanding the above, the acceptance period may be extended without limitation once the offeror has completed the offer.

Restrictions on the offeror's right to submit a new offer

II.24 If a submitted offer is not completed, the offeror or a party closely related to the offeror according to Rule I.3 may not make an offer to acquire shares in the offeree company or acquire sufficient shares in the offeree company to trigger a requirement to make a mandatory offer pursuant to Chapter 3 of the Takeovers Act (SFS 2006:451) within the following 12 months. This also applies to any party closely related to the offeror according to Rule I.3 when the offer was submitted. The first and second sentences do not apply if the offeror submits a new offer which is recommended by the board of the offeree company, **or if the offeror, having withdrawn an offer due to stipulation in the third paragraph of Rule II.7, obtains the required regulatory approvals and returns with a renewed offer within four weeks of receiving them.**

Appendix 30B [Nasdaq Takeover Rules, 2018]

Appendix 31: Evaluation of the EC Original and Alternative Test for the Haldex Merger

Original Test	Haldex (in MEUR) 2015	KB (in MEUR) 2015
I) Global combined turnover > EUR 5,000 million	510.7	5823.5
II) EU-turnover per merging entity > EUR 250 million	168.2	✓(*)
III) None of the concerned firms generated 2/3 of ist EU turnover in one and the same country	✓(*)	✓(*)

(*) Based on internal information provided by Haldex AB

Appendix 31A: [Source: Own analysis based on information from Haldex AB and Knorr-Bremse AG]

Alternative Test	Haldex (in MEUR) 2015	KB (in MEUR) 2015
I) Global combined turnover > EUR 2,500 million	510.7	5823.5
II) EU-turnover per merging entity > EUR 100 million	168.2	✓(*)
III) None of the concerned firms generated 2/3 of ist EU turnover in one and the same country	✓(*)	✓(*)
IV) In 3 EU member states: Combined national turnover of all merging firms > EUR 100 million	✓(*)	✓(*)
V) In 3 EU member states: National turnover of per merging entity > EUR 25 million	✓(*)	✓(*)

(*) Based on internal information provided by Haldex AB

Appendix 31B [Source: Own analysis based on information from Haldex AB and Knorr-Bremse AG]