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**CORPORATE RESTRUCTURING IN THE MEDIA INDUSTRY:**  
**Coping with internet and digitisation**

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## **ABSTRACT**

This paper examines wealth effects, and their drivers, accruing to media firms' shareholders from corporate restructuring announcements. Over two samples of 2,346 media M&A's and 1,266 media sell-offs pursued by North American and Western European media firms, cumulative abnormal returns are calculated based on the market model. Both media M&A and sell-offs yield positive significant CARs. Certain transaction strategies and sample periods yield greater CARs than others. Effects of self-designed drivers "target country digitisation" and "operational synergy potential" on CARs is examined through OLS regression models. Solely target country digitisation is found to partially drive CARs robustly in media M&A. Operational synergy potential effects media sell-off CARs negatively and significantly through parent diversification.

**Keywords:** Media, mergers and acquisitions, sell-offs, event study, cumulative abnormal returns

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## CHAPTER 1 Introduction

Commuters reading the newspaper on the subway in the morning, a street scene that is disappearing in many developed countries and being replaced by commuters scrolling endlessly through all digital content made available to them on their portable devices. The global media industry has gone through several shocks last decades that caused drastic industry restructuring: the rise of satellite and cable television, deregulation of information industries and digitisation in the 2000s (Chon, Choi, Barnett, Danowski & Joo, 2003). Digitisation is the shock incorporating the rise of the internet, smartphones and other portable devices, which hit the media industry most significantly in recent years. Before, content was sold by content creators to packagers. These packagers made subscription-based deals with distributors, who sold subscriptions to consumers. In addition to the lucrative subscription model, both packagers and distributors sold advertising opportunities, simple and profitable (Nahass, Rooney, Kennedy & Bistis, 2016). However, as content is being increasingly driven by consumer demand and its distribution is hardly controllable, the conventional business model mentioned above has become obsolete. Advertising revenue streams of digital media continue to grow, whereas more traditional media outlets are increasingly missing out on these revenue streams (Pew Research Center, 2017).

Boundaries between various media sectors have become blurred due to digitisation and therefore companies are forced to expand their footprint into sectors previously regarded as unrelated to cope with financial pressures and growth challenges (Sullivan & Jiang, 2010). Thereby, driven by globalisation, media firms have increasingly become global entities, marketing their content over the entire world (Croteau & Hoynes, 2006). On the other side, in hope of spurring their growth, some larger media conglomerates have spun off a subset of their operations as pure play entities (Purdy, Wong & Harris, 2016; Chan-Olmsted & Chang, 2003). Also, sell-offs occur when a media conglomerate is considered to have too many strategic business units (SBUs), constraining efficiency (Owers & Alexander, 2011). For media firms, these restructuring transactions are strategic methods to adapt to the industry dynamics by improving companies, rationalising operations, and gaining access to resources needed for competing in larger markets with powerful competitors (Picard, 2011). Accordingly, media restructuring transactions are strongly in line with synergistic theory and not particularly driven by managerial objectives (Mulherin & Boone, 2000).

In the end, increased shareholders' value is the desired outcome of a restructuring transaction. Yet, payoffs of transactions within the media industry diverge. Perhaps the most well-known failure in the industry is the AOL Time Warner deal in 2000, one of history's greatest mergers, worth \$165 billion. In 2009 Time Warner divests AOL, unwinding one of the most disastrous corporate marriages in the history of the media industry. AOL was bought by Verizon in 2015 for a mere \$4.4 billion and AT&T just closed its acquisition of Time Warner for \$85.4 billion (Grocer, 2018). Contrariwise, the acquisition of Pixar by Walt Disney was perceived as highly successful.

Given the fact that media holds a central role in society, existing literature predominantly focusses on legal and political issues related to the effects of corporate restructuring on viewpoint diversity, public interest and content quality (Ho & Quinn, 2008; Baker, 2007; Croteau & Hoynes, 2006). Research on these topics is primarily conducted by scholars from the field of media economics, law and politics. Especially transactions increasing media ownership concentration are not well received by policy makers and industry practitioners (Chan-Olmsted & Chang, 2003). However, approaching media restructuring from a financial economics perspective, not much is known yet about value creation through these restructuring transactions. This paper aims to examine the relationship between restructuring activity and value creation by media firms. By the term restructuring in this paper is meant ‘strategic reorganisations of business units’, resulting from M&A and divestiture transactions. For listed firms, the immediate effect of a restructuring transaction can be observed in the financial markets, where success is measured by the ability to increase the firms’ stock price and thereby firm value. Shareholders, owners of publicly traded firms, initially invested while hoping to realise returns through stock appreciation and dividends. Hence, an important measure of restructuring impact are stock market reactions to restructuring announcements. Therefore, the research questions of this study are as follows:

- (1) *“Does corporate restructuring activity within the media industry result in short-term wealth effects?”*
- (2) *“What drives short-term wealth effects of restructuring activity in the media industry?”*

In this study, stock market reactions to M&A and divestiture activity of media firms are examined by calculating the cumulative abnormal returns arising from announcements of 2,346 media M&A deals and 1,266 media sell-off transactions. Restructuring transactions included in this research are announced between 1999 and 2018 and are solely pursued by North American and Western European media firms. Abnormal returns are calculated by different approaches and over two event windows (three-day and eleven-day), all calculations are based on the market model. Both media M&A and media sell-offs are found to yield significantly positive cumulative abnormal returns, which is in line with synergistic theory (Mulherin & Boone, 2000). Prevailing restructuring strategies occurring in the media industry are conglomerate M&A, cross-border M&A and industry focusing divestitures. Therefore, these strategies are highlighted in this study. When announced between 2009 and 2018, domestic media M&A yields significantly higher *CARs* than cross-border media M&A. The univariate analysis presents semi-strong evidence indicating that conglomerate media acquirers significantly outperform focusing media acquirers in terms of *CARs*. No significant differences are found between *CARs* from focusing and non-focusing sell-offs.

Media industry specific evidence on stock price reactions to corporate restructuring announcements is scarce. Owers and Alexander (2011) present evidence on this topic, nevertheless they solely consider transactions over \$1 billion between 1997 – 2008, do not thoroughly distinguish between certain

transaction types (e.g. cross border, conglomerate, focusing) and do not identify potential drivers of abnormal returns. Their results indicate that media firms lose more value when engaging in M&A than firms from other industries. Alternatively, divestiture transactions generally yield positive returns to the parent company shareholders according to their results.

This research aims to dive into the drivers of short-term wealth effects. Earlier academic research on drivers of wealth effects from media restructuring is lacking, therefore this study introduces potential drivers. By combining motives for restructuring activity mentioned in media economics literature and in literature on cross-sectional corporate restructuring, potential drivers of abnormal returns are derived. The newly designed drivers potentially influencing abnormal returns from media M&A are “target country digitisation” and media firms’ “operational synergy potential”. Media firms’ “operational synergy potential” is also proposed as a potential driver of abnormal returns from media sell-offs.

The proposed drivers, “target country digitisation” and “operational synergy potential”, are empirically tested by examining their effect on *CAR*  $(-1,+1)$  through linear and non-linear OLS regression models. Robust estimates from these regression models indicate that “target country digitisation” solely influences *CARs*  $(-1,+1)$  from media M&A significantly through the number of broadband subscriptions per 100 persons in the target country. No significantly robust estimates are found for the impact of media acquirers’ “operational synergy potential” on *CARs*  $(-1,+1)$ . Unexpectedly, results indicate a robust and highly significant negative impact of “operational synergy potential” through parent diversification on *CARs*  $(-1,+1)$  from media sell-off announcements. Interestingly, from the multivariate analysis it turned out that traditional media firms have a strongly significant and robust effect on *CARs* from M&A in comparison to telecommunication firms.

This paper is organised as follows; chapter 2 deals with literature on media firms and media economics. It also reviews academic research on motives for restructuring activity and it reviews literature dealing with wealth effects of restructuring activity. Chapter 3 provides a clear overview and justification of the hypotheses drawn from the literature review. Thereafter, Chapter 4 elaborates on the data and methods used to conduct this research. In Chapter 5, the empirical results are analysed and interpreted. Lastly, chapter 6 concludes and discusses the main findings, mentions limitations of the research and adds recommendations for further research in this field. See appendix 1 for the conceptual framework of this research.

## **CHAPTER 2 Literature review**

This chapter provides an extensive review of the literature on media firms and media economics. Subsequently, it highlights valuable empirical studies on motives for pursuing corporate restructuring activities and on short-term value creation by corporate restructuring activities. This section starts with describing what media types the media industry – as is dealt with in this paper – consists of. This chapter serves as both a guideline and inspiration source to set hypotheses, to determine the research methodology and to select sample data.

### **2.1 Media firms**

As mentioned in the introduction, boundaries between various media sectors have become blurred due to digitisation. This calls for a careful description of what is meant by the media industry in this research. Table 1 summarises all media types the media industry consists of. Recent years, technology, media and communication industries are often taken together and labelled as the TMC or TMT industry. Yet, the activities of authentic media firms are either developing, producing or distributing multimedia content (Doyle, 2013). I follow the categorisation given by Noam (2016), who identifies thirteen distinctive media sectors and seeks to draw consistent and up-to-date definitions. These thirteen media sectors can roughly be classified into three overarching media subsectors: traditional media, telecommunications and digital media.

To emphasise the uniqueness of media firms, I elaborate on certain characteristics that distinguish them from other areas of economic activity. First, media firms predominantly operate in “two-sided” markets (Picard, 2011). Firms in two-sided markets produce two different outputs which, in turn, can be sold separately to different buyers. Outputs produced by media firms are content (e.g. newspapers, television shows) and audiences. Access to generated audiences can be packaged, priced and sold to advertisers. Therefore, primary revenue streams come from advertising and subscriptions (Chan-Olmsted & Chang, 2003). The objective to enhance these revenue streams by increasing scope is a driving force of restructuring transactions. The urge to increase scope also relates to the second unique characteristic, namely the fact that media firms are heavily influenced by network effects as described by Katz and Shapiro (1994). Meaning that the perks from media usage for individuals are often dependent on the number of other users already connected to the network. This implies that, especially for platform media, the value it creates to users increases as its network expands. Furthermore, content generated by media firms exhibits unusual properties. Generally, media content is perceived as a “cultural” good, not as a pure commercial product. Individuals may even create media content without receiving monetary compensation. Expressive or artistic motives, public service motives and desires to achieve fame and celebrity count heavily in content creation. This is opposing, for example, retail industries, where it would be unheard for individuals to perform labour without receiving compensation. Additionally, media content is inexhaustible. It does not get used up or destroyed by consuming it, so content is

supplied repeatedly to different users. The consequence of media content not being perceived as pure commercial and being inexhaustive, is oversupply. Since consuming all content is impossible, consumers have great market power and can easily determine success, failure and price of media content. Lastly, media content is typically expensive to produce and relatively cheap to reproduce and extend to additional users, hence exhibiting significant economies of scale. Digital media is even more capital intensive than more traditional media, creating incentives for media firms to merge, become a first mover and gain scale (Croteau & Hoynes, 2003).

**Table 1: Overview of distinct media sectors (Noam, 2016)**

Media category	Includes	Sector definitions
Content media (Traditional media)	Books	All books, including textbooks and e-books
	Magazines	Periodicals, mostly consumer oriented
	Newspapers	Newspapers, not including their online versions (news-stand sales, subscriptions and free distribution)
	Radio	AM, FM, digital terrestrial, and satellite audio broadcasting, both stations and networks
	Broadcast TV	All “free TV” terrestrial video broadcasting by station and networks, as well as the retransmissions of such channels over cable and satellite
Platform media (Telecommunication)	Video channels	Channels not distributed for free over-the-air but for free over cable and satellite platform
	Film	Production, distribution, and importation of feature-length films.
	Multichannel platforms	Cable TV, direct-to-home broadcast satellites, telecom IPTV, and online (OTT) providers. The channels they carry (video channels and TV broadcasters) are not included
Internet media (Digital media)	Wireline telecom	Telecom companies, cable and online providers of telecom service. Does not include mobile telecom, ISP service, and IPTV
	Wireless telecom	Mobile service providers, not including handsets
	Internet service providers	Internet service access, including broadband and dial-up, using wireline, cable, satellite, or mobile connectivity
	Search engines Online news media	Major web-based information search systems Online versions of newspapers, magazines, newsletters, and online providers and compilers of regular news.

## 2.2 Media economics

Media economics is concerned with the dynamic economic forces that affect and constrain the choices of decision makers active in media businesses (Doyle, 2013). To create a better understanding of how media firms operate, this section introduces the main economic pressures and issues that affect the media industry. Many media firms used to operate in markets where competition levels were highly affected by technological factors or by governmental regulations. These forces held back competition before the 21<sup>st</sup> century (Doyle, 2013). Times have changed, predominantly because of technological advances that contributed to the erosion of entry barriers to media markets. For instance, the internet has greatly diminished entry costs for individuals that wish to publish media content (Shirky, 2010). As a result, the amount of Web-delivered media services such as YouTube and Netflix increased fast and became immensely popular. This development in turn generated a focus on the fight for audiences and on the urge to control key access points to media content (Doyle, 2013). Thus, the internet has been a disruptive force for the media industry, as Doyle (2013) states: “The rapid growth and development of this infrastructure which seamlessly conveys not only communications but digital content of all sorts across transnational boundaries has reshaped the competitive environment for all media businesses”.

Digitisation on the other hand has greatly blurred market boundaries that used to separate diverse media sectors. Doyle (2013) labels this trend as “digital convergence”, which refers to the consolidation of sectors and products that were perceived as separate and distinctive before. Digital convergence is a consequence of the shared use of digital technologies. Besides affecting content and its delivery, this trend has also strongly changed corporate strategies and operations of media firms (Picard, 2011). As a response to digital convergence, many media firms adopted multi-platform approaches to survive “creative destruction”, a term introduced by Joseph Schumpeter (1942). “Creative destruction” is described as a process of technological change and evolving innovations that forces established businesses either to adapt or to exit (Schlesinger & Doyle, 2015). The aim of a multi-platform strategy is supplying and exploiting media content through various platforms and configurations – including digital – instead of through a single outlet.

### **2.3 Corporate restructuring**

Managerial scholars focus on how firms organise themselves by studying how they determine the optimal number and variation of strategic business units (SBUs hereafter). An SBU is described as an individual set of operations that could potentially become an individually operating firm. When a media firm consists of numerous distinctive SBUs, it is labelled as “media conglomerate” (Chan-Olmsted & Chang, 2003). When a corporate configuration is perceived as sub-optimal, restructuring activity occurs in the form of a divestiture or an acquisition. Corporate restructuring decisions are a crucial element of long-term strategic planning (Bowman & Singh, 1993). Since restructuring transactions change the composition of an organisations’ business activities, it influences the firms’ answer to the question: “what business are we in?” (Brauer 2006). Brauer (2006) finds that changing corporate ownership and adjusted business portfolios and corporate structures affect industry macro-parameters, such as competitive pressure and concentration. In the following two subsections I elaborate on cross-sectional motives for M&A and divestiture decisions.

#### **2.3.1 Motives for mergers and acquisitions**

Although it is beyond the scope of this paper to empirically test the motives of managers to engage in corporate restructuring activities, it is of interest to create an understanding of where restructuring behaviour stems from. These motives might provide insights into certain firm, country or deal level characteristics that potentially drive wealth effects. Motives for pursuing M&A have been extensively researched and described by scholars from various fields, ranging from neoclassical to behavioural theories. Motives to engage in M&A activity can broadly be divided into i) profit maximising and ii) non-profit maximising. The profit maximising stream includes motives of rational managers that aim for long-term shareholder value creation. This stream is consistent with neoclassical theories that see mergers as responses to various industry shocks to improve efficiency. Therefore, it assumes that managers can prioritise targets, identify stock market inefficiencies, and consequently take advantage

of them (Shleifer & Vishny, 2003). On the other hand, M&A activity driven by non-profit maximising motives is often consequence of irrational behaviour. For example, CEO overconfidence (Malmendier & Tate, 2008) and managerial hubris (Roll, 1986). In these cases, managers, conscious or not, maximise their own utility and interests, which is not in the best interest of the firms' shareholders. Three overarching motives for M&A – relating to the formerly mentioned distinction – identified by Berkovitch and Narayanan (1993) are: agency, synergy and hubris. Synergy motives stem from the idea that combining resources generates economic gains. Acquisitions increasing wealth of acquiring management at the cost of shareholders' wealth are presumably driven by agency motives. An acquisition is hubris driven when acquiring management wrongly values the target company, consequently the acquisition does not yield synergistic gains. Berkovitch and Narayanan (1993) find that acquisitions generating positive returns are primarily driven by synergy motives, whereas acquisitions generating negative returns are predominantly driven by agency motives. Acquisitions driven by hubris yield on average returns close to zero. Chatterjee (1986) focusses on resources that create economic value – synergies – and classifies three distinctive categories. These are: financial synergies, collusive synergies and operational synergies. Financial synergies stem from cost of capital related resources, collusive synergies relate to market power and operational synergies relate to economies of scale and scope. As mentioned earlier, media economic scholars argue that M&A activity of media firms is often undertaken to gain market power – by expanding globally and by entering new sectors – and to realise operational synergies.

### **2.3.2 Motives for divestitures**

Another form of corporate restructuring is divesting components of operations or assets. Restructuring in the form of a divestiture can be driven by different motives, that also vary per industry. I examine pioneering literature on motives for divestiture decisions, yet it is important to first distinguish between divestiture strategies. Mulherin and Boone (2000) classify three divestiture strategies: equity carve outs, corporate spin-offs and “major” asset sell-offs. When performing a “major” asset sell-off, firms' operating assets are exchanged for cash, securities or other operating assets of the acquiring party. An asset sell-off differs significantly from a spin-off. The result of a spin-off transaction is a completely independent entity, however like an asset sell-off, a spin-off also reduces the divesting parent's asset base. In a spin-off, assets are often transferred to a newly organised and incorporated entity, the shares of this entity are then allocated to the divesting parent's original shareholders (Hite & Owers, 1983). An equity carve-out can be described as a partial sale of a subsidiary by the parent company through an initial public offering. Generally, the stake the parent company retains in the subsidiary following the carve-out is significant, yet it may also lose control rights over the subsidiary (Chahine & Zeidan, 2014). Although these three divestiture strategies differ from each other, they are common in the sense that in all cases the event partially or fully removes assets from the control of the divesting parent firm.

**Table 2: Transaction types and coherent legal attributes**

<b>Transaction strategy</b>	<b>Legal attributes</b>
M&A	M&A transactions take various forms, such as: mergers, consolidations, acquisitions, management acquisitions, purchase of assets and tender offers. However, in each form two firms are involved. Typically, the acquiring company buys 100% (or less) of the shares of the target company's shareholders, founders or owners. Thereby the acquiring company gains management control over the target entity.
Spin-off	Parent company spins-off an SBU that becomes an independent company. Shares are being issued in a new corporate entity. Parent company shareholders receive shares in the new spin-off entity in proportion to their original holdings and the total value remains approximately the same
Equity Carve-out	Also known as partial spin-off or split-off IPO. In this case a company creates a new SBU and subsequently IPOs it partially. The company retains management control, typically 20% of the SBU shares are sold publicly
Sell-off	In this case selected operations or assets, along with management and contracts, as opposed to shares, are acquired by a buying firm. Therefore, the seller loses ownership of the company and is obliged to pay existing liabilities and debts before taking the net cash proceeds from the sale
Joint Venture	In this contractual business arrangement two (or more) parties combine their resources for carrying out a specific task

Schlingemann, Stulz, & Walkling (2002) propose explanatory factors for corporate divestiture transactions. They argue that market liquidity for corporate assets determines whether a firm divests an SBU, which SBU it divests and whether it divests a core SBU or an unrelated one. They figure that if a firm's SBU is active in an industry with a relatively liquid market for corporate assets, firms are more likely to divest that SBU. Generally, it is more challenging to sell an SBU in illiquid markets, therefore the SBU might be sold at a discount. Schlingemann et al. (2002) argue that besides the liquidity explanation, there are three other meaningful motives explaining divestiture activity: the financing explanation, the efficiency explanation and the focusing explanation. I clarify these explanations further through theories proposed by other scholars. Some scholars suggest that higher organisational complexity might reduce productivity, which relates to the focusing explanation. It may trigger integrated firms to consider contracting its boundaries and refocus on its core business (Eckbo & Thorburn, 2008). Schlingemann et al. (2002) emphasise as well that a company might become more efficient by reducing their degree of diversification. Dittmar and Shivdasani (2003) came up with the corporate focus hypothesis, which is consistent with the focusing explanation. The efficiency explanation is based on the idea that in some cases other firms might operate assets (SBUs) more efficiently than the current parent firm. Jain, Kini and Shenoy (2011) examine the corporate decision to vertically disintegrate from a product-market perspective. They find that vertical divestitures are an apparent response to positive industry demand shocks, favourable industry financing conditions, and to cases where parent firms are relatively less productive than the subsidiary that is likely to be divested. The latter finding is connected to the efficiency explanation. The last explanation mentioned by Schlingemann et al. (2002) is the financing explanation, this explanation claims that divestitures occur to relax credit constraints. Besides the corporate focus hypothesis, Dittmar and Shivdasani (2003) also propose the financing hypothesis to explain divestiture decisions. The financing hypothesis is alike the financing explanation mentioned by Schlingemann et al. (2002). According to the financing hypothesis "asset sales relax external financial constraints and allow firms to undertake valuable investments that

would otherwise be foregone” (Dittmar & Shivdasani, 2003). Dittmar and Shivdasani (2003) find evidence supporting this hypothesis.

In the end, Mulherin and Boone (2000) find that divestiture activity varies greatly among industries. Yet, most importantly, divestitures are in line with synergistic theory. Synergistic theory argues that divestitures and acquisitions are driven by changing economic conditions and industry shocks. Synergistic divestitures create value in contrast to non-synergistic divestitures. Non-synergistic theory builds on models of management entrenchment, managerial hubris and empire building. According to Mulherin and Boone (2000), one could assume that divestitures – in contrast to acquisitions – are more likely to create value.

#### **2.4 Evidence on M&A transactions**

Does M&A pay? A thoroughly examined topic by many scholars from a broad range of perspectives (Andrade, Mitchell & Stafford, 2001). As claimed by managers and analysts, M&A transactions are expected to enhance economic efficiency, especially generated by economies of scale and scope and other synergies (Peltier, 2004). This perception is simply supported by the argument that combining two firms should be more valuable than the sum of two individual entities separately. Whether the former really holds depends on what measure is applied, what the definition of returns is and to what specific reference it is benchmarked. Literature on how to evaluate M&A performance is conflicting, a rough distinction in M&A performance measures is made between market-based measures and accounting studies. Accounting studies on post-merger performance focus on accounting information, such as cash flows, profit margins, growth rates and Key Performance Indicators (KPI's hereafter), to determine whether operating performance is truly enhanced or not. Performance indicators used in accounting studies are so called “backward looking”, they show realised results. Contrariwise, market-based measures are based on discounted future expectations and reflect investors faith in the transaction, hence “forward looking” (Bruner, 2002). Drawbacks for both methods are thoroughly discussed in literature. Accounting studies are often criticised for potential inconsistencies between country or firm reporting practices. Also, properties of certain performance measures vary greatly among industries. For example, profit margins in retail are typically significantly lower than profit margins in pharmaceutical industries. This leads to distortions when comparing accounting metrics as return on assets. Furthermore, isolating gains in accounting measures, that are solely driven by an acquisition, is challenging. Most importantly, accounting studies do not consider value of intangible assets and strategies (Capasso & Meglio, 2007). On the other hand, market-based studies require stock markets to function rational and efficient, which is unrealistic. Nevertheless, according to the market efficiency theory, capital markets can function in their weak, semi-strong and strong form. Capital markets in their weak form are incapable of controlling for factors influencing the deal, whereas from the strong market form it is impossible to determine how markets would look like without the deal (Jensen, 1978). It is therefore conventional to examine M&A

performance in markets assumed as semi-strong by comparing returns surrounding a M&A announcement to benchmark returns. Market-based studies dominate accounting studies and since I am highly interested in how restructuring activities are perceived by market participants, I apply market-based measures for conducting this research.

Accordingly, most empirical research on M&A performance assesses market-based returns to the acquirer, the target or the combined entity. Event study methodology yields insights in value creation for shareholders of the acquirer, the target or for the combination of both. Bruner (2002) broadly categorised outcomes of market-based studies into three main findings: (i) M&A deals yield a premium return to target firms' shareholders (ii) shareholders of the acquiring firm break even or receive significant negative abnormal returns in aggregate (iii) most scholars find positive, although insignificant, abnormal returns for the combined entity. This research examines M&A and divestiture transactions pursued by public media firms that acquire and dispose public as well as non-public entities. For this reason, the research design is limited to observing abnormal returns to acquiring and parent firms (divestors) only. Therefore, I will continue reviewing literature that includes empirical evidence of acquirer and divesting parent returns obtained by market-based methods.

Early studies show that no significant gains accrue to acquirer shareholders. Martynova and Renneboog (2008) provide an overview of empirical evidence on M&A performance and conclude that acquirer shareholders on average realise abnormal returns that are statistically equivalent to zero. They examine acquirer shareholder returns through every takeover wave and find similar results for each wave. According to Martynova and Renneboog (2008) deal characteristics such as (i) the status (private or public) of the target (ii) the method of payment (iii) nature of the deal (hostile or friendly) and (iv) the industry relatedness of the target, affect returns to acquirer shareholders. Jensen and Ruback (1983) review early academic research on the market for corporate control and takeovers prior to 1980. They conclude that returns to successful bidding firms are zero on average. Andrade et al. (2001) review evidence from the 1990s and state that it is hard to argue that acquiring shareholders lose in M&A transactions, since negative estimates of abnormal returns are not statistically significant. Interestingly, a very recent paper by Alexandridis, Antypas and Travlos (2017) argues that post-2009, M&A deals create more value for acquirer shareholders than in earlier years. One can conclude from this review that acquirer shareholders should expect abnormal returns to be approximately zero in the event of a M&A deal.

#### **2.4.1 Domestic vs. cross-border acquisitions**

Acquiring a target company established in another country is a trend that rose sharply after the 1980's, in the fifth and sixth merger wave (Martynova & Renneboog, 2008). Expanding into new geographies by means of M&A is a common phenomenon in the media industry (Doyle, 2013). Noam (2016) states: "the internationalisation of economies and services means that well-established media firms from

countries, typically advanced ones, have gained a presence in other countries, and in the process have grown in size and market power”. From a resource-based view of the firm, cross-border transactions are pursued to use existing resources for achieving a competitive advantage in the target firm country or to obtain new resources imperfectly mobile across countries to enhance firms market power and competitiveness in the home country (Anand & Delios, 2002).

Cross-sectional empirical evidence on cross-border M&A strategies is fragmented as discussed in the remainder of this sub-section. Goergen and Renneboog (2004) analyse short-term wealth effects of large intra-European takeover bids. Their results show that domestic M&A yields negative announcement effects, whereas cross-border M&A yields significant announcement effects of 3.09% for acquirers. Moeller and Schlingemann (2005) conducted an event study with a sample of takeovers by US firms that took place between 1985 and 1995. The results of their study show that cross-border acquirers experience a significant, approximately 1%, lower announcement stock return than domestic acquirers. Interestingly, Lowinski, Schiereck and Thomas (2004) analyse wealth effects of cross-border take-overs by Swiss corporations between 1990 and 2001 and find no significant differences in returns of domestic and cross-border takeovers. More recently this topic has again received attention. Research by Mateev and Andonov (2016) examines short-term wealth effects of European transactions that took place between 2003-2010. In their paper they report that domestic bidders earn higher abnormal returns than cross-border bidders upon announcement. Finally, Meng and Sutton (2017) also attempt to test the so-called “cross-border” effect: differences in wealth gains to bidders in foreign and domestic transactions. Their evidence shows that gains to US bidders are significantly lower in cross-border transactions than in domestic transaction, this is in line with the study of Moeller and Schlingemann (2005) mentioned before. One can conclude that evidence showing less lucrative cross-border transaction wealth gains in comparison to domestic transactions tends to dominate.

*Table 3: Summary of literature on cross-border and domestic M&A*

Author(s)	Period	Main findings (%)			N	Window
		Domestic	Cross-border	Difference		
Mateev and Andonov (2016)	2003 – 2010	1.05***	.94***	.11**	1903 / 918	(-1, +1)
Meng and Sutton (2017)	1990 – 2012	1.157***	.604**	-.55**	3,165 / 18,454	(-1, +1)
Moeller and Schlingemann (2005)	1980 – 2001	1.173***	.307	-.866***	4,056 / 383	(-1, +1)
Lowinski et al. (2004)	1990 – 2001	.32	1.26**	.94	23 / 91	(-1, +1)
Goergen and Renneboog (2004)	1993 – 2000	-.10	3.09***	n.a.	86 / 56	(-2, +2)

### **2.4.2 Focusing vs. conglomerate acquisitions**

The development of media conglomerates is a well-documented trend in media industries. Media businesses expand sideways into activities perceived as complementary or as new growth areas. In the media industry diversifying acquisitions are driven by the potential to share the use of specialised resources or expertise across more than one media output category (Doyle, 2013). In general

conglomerate takeover strategies are said to suffer from the “diversification discount” (Berger & Ofek, 1995). The “diversification discount” implies that the sum of the values of standalone SBUs is greater than the value of all SBUs taken together as a conglomerate. An early paper in the field of corporate diversification by Morck, Shleifer & Vishny (1990) states that bidder shareholders lose wealth when pursuing a diversifying takeover. Their evidence also suggests that these bad acquisitions are driven by managerial objectives. Hubbard and Palia (1999) support the findings of Morck et al. (1990), they find significant and positive announcement returns for focusing M&A and slightly positive announcement returns, but insignificantly different from zero, for conglomerate M&A. Also, Martynova and Renneboog (2006) find that diversifying mergers are value destroying and greatly driven by managers’ personal objectives. They show that short-run wealth effects are significantly higher for firms that announce an expansion within their core business contrary to firms announcing a diversifying takeover. The study of Maquieira, Megginson and Nail (1998) finds significant net synergistic gains for nonconglomerate M&A, whereas they find insignificant non-synergistic gains for conglomerate M&A. Nevertheless, by showing evidence in a case-study, Chan-Olmsted and Chang (2003) argue that media conglomerates are not subject to the “diversification discount” due to a unique combination of certain media characteristics. These characteristics are mentioned in the section 2.1: dependency on dual revenue streams, inexhaustibility of media output and strong influences of regulatory control and cultural preferences (Picard, 2011; Croteau & Hoynes, 2006; Doyle, 2013). Chan-Olmsted and Chang (2003) state: “The listed characteristics of media products leads to a market environment in which related product/geographic diversification as well as complementary resource alignment are likely to be the preferred diversification strategy”. In conclusion, from cross-sectional market-based evidence one can assume that diversifying strategies generally destroy value, yet this might vary for media industry specific evidence.

*Table 4: Summary of literature on focusing and conglomerate M&A*

Author(s)	Period	Main findings (%)			N	Window
		Focusing	Conglomerate	Difference		
Martynova and Renneboog (2006)	1993 – 2001	0.63	0.36	n.a.	n.a.	(-5, + 5)
Maquieira et al. (1998)	1963 – 1996	6.14**	-4.79	n.a.	55 / 47	(-60, +60)
Hubbard and Palia (1999)	1961 – 1970	1.62***	0.24	n.a.	391	(-5, +5)
Morck et al. (1990)	1975 – 1987	2.38	-1.82	4.20	91 / 236	(-1, +1)

## **2.5 Evidence on divestitures**

The purpose of this section is to review evidence on the relationship between divestiture activity and short-term wealth effects and to identify potential moderating effects. Unlike M&A transactions, the impact of divestiture activity on short-term wealth effects has not received high levels of attention from scholars (Lee & Madhavan, 2010). I defined divestitures earlier as adjustments to a firms’ business portfolio and ownership structure through an equity carve-out, spin-off or “major” asset sell-off (Mulherin & Boone, 2000). A meta-analysis performed by Lee and Madhavan (2010) reports that across

studies, divestitures positively impact firm performance. Similar results are presented by Cusatis, Miles and Woolridge (1993), who relate their outcomes to the efficiency explanation (Schlingemann et al., 2002). Comment and Jarrell (1995) argued that greater corporate focus is indeed consistent with shareholder wealth maximisation. Enhanced value for the parent firm is explained by managers ability to focus on core operations they are best suited to manage. Hence, divestitures may unlock value by eliminating value-destroying negative synergies, such as overdiversification and diseconomies of scale. The paper by Mulherin and Boone (2000) is pioneering in this field and measures the wealth effects of divestitures. They find positive CARs of 3.04% for the 370 divestitures in their sample, not making any distinctions in transaction formats. On the other hand, one might also expect divestiture activity to negatively impact shareholder wealth effects due to a possible signalling function. A divestiture transaction might reveal hidden value in the post divestiture firm, nevertheless Lee and Madhavan (2010) find no evidence supporting this signalling theory.

### 2.5.1 Non-focusing vs. focusing divestitures

Empirical evidence on short-term value creation generated by focus increasing divestitures is unanimous. According to Daley, Mehrotra & Sivakumar (1995), divestitures eliminating unrelated business especially create wealth gains. This is consistent with the study of Veld and Veld-Merkoulova (2004), they examine industry focus increasing and non-focus increasing European spin-offs. The abnormal returns found for both samples differ significantly from zero, CARs were 3.57% for spin-offs increasing focus and 0.76% for non-focus increasing spin-offs. Results obtained by Dittmar and Shividasani (2003) also support the corporate focus theory for corporate divestitures. They show that sell-offs improve investment efficiency of the remaining SBUs. Same holds for Desai and Jain (1999), who find that short-term as well as long-term abnormal returns are significantly higher for focus-increasing spin-offs in comparison to non-focus-increasing spin-offs. Interestingly, Schlingemann et al. (2002) indeed find that unrelated SBUs are also most likely to be divested. Obviously, one could assume that when divesting an unrelated SBU stock markets will react positively.

*Table 5: Summary of literature on non-focusing and focusing divestitures*

Author(s)	Period	Main findings (%)			N	Window
		Focusing	Non-focusing	Difference		
Veld and Veld-Merkoulova (2004)	1987 – 2000	3.57***	.76	2.80**	73 / 35	(-1, +1)
Dittmar and Shividasani (2003)	1983 – 1994	3.5***	3.6***	0.1	134 / 144	(-1, +1)
Desai and Jain (1999)	1975 – 1991	4.45***	2.17***	2.26***	103 / 41	(-1, +1)
Daley et al. (1995)	1975 – 1991	1.4	4.3***	n.a.	25 / 60	(-1, 0)

## CHAPTER 3 Hypotheses development

From the literature review, covering the academic background of the research topic, hypotheses can be set regarding the relationship between corporate restructuring and shareholder value creation for acquiring and divesting media firms. This study contributes to the understanding of short-term wealth effects – cumulative abnormal returns (CARs hereafter) – received from strategic restructuring activities in the media industry. The first overarching research question, (1) “*does corporate restructuring activity within the media industry yield short-term wealth effects?*”, is divided into two sub questions. (i) “*Does M&A yield short-term wealth effects to the acquiring media firms’ shareholders?*”, (ii) “*do divestitures yield short-term wealth effects to the divesting media firms’ shareholders?*”. Moreover, I am greatly interested in the drivers of short-term wealth effects in these restructuring transactions. Hence, the former questions are complemented with the second research question (2): “*What drives short-term wealth effects of restructuring activity in the media industry?*”. Earlier academic research on drivers of wealth effects from media restructuring is lacking. Therefore, potential drivers are self-designed in this thesis, by combining motives for restructuring activity mentioned in media economics and in cross-sectional corporate restructuring literature. The self-designed drivers potentially influencing abnormal returns from media M&A are “target country digitisation” and media firms’ “operational synergy potential”. The drivers are further explained in the remainder of this chapter.

In this study synergistic theory is assumed, implying that divestitures and acquisitions are driven by changing economic conditions and industry shocks. Digitisation is the shock that incorporated the rise of the internet and smartphones, which hit the media industry most significantly in recent years. Non-synergistic theory is based on models of management entrenchment, managerial hubris and empire building. Many scholars have documented abnormal returns that accrue to the acquiring firms’ shareholders in the event of M&A (Andrade et al., 2001; Bruner, 2002; Martynova & Renneboog, 2008). Yet, evidence predominantly shows that acquiring firms’ shareholders suffer no significant loss, neither do they experience serious gains. Therefore, the first hypothesis of this research is:

***Hypothesis 1: Acquiring media firms’ shareholders receive CARs significantly equal to zero***

From the literature review on cross-sectional M&A it appears that certain M&A strategies are potentially disadvantageous for value creation. For example, cross-border acquirers generally perform worse than domestic acquirers in cross-sectional samples (Goergen & Renneboog, 2004; Moeller & Schlingemann, 2005; Lowinski et al., 2004; Mateev & Andonov, 2016). However, driven by network effects and the objective to increase their primary revenue streams – advertising and subscriptions – media firms often expand their footprint cross-border to enhance scope. Given the current state of digitisation and the impact digitisation has on media firms (Doyle, 2013), one could expect that expanding into countries with high levels of digitisation – measured by internet usage, cellular subscriptions and broadband subscriptions – might be lucrative for acquiring media firms. Hence, I draw the following hypotheses:

***Hypothesis 2: Cross-border media acquirers receive lower CARs than domestic media acquirers***

***Hypothesis 3a: In media M&A, “target country digitisation” positively influences acquiring firms’ CARs***

***Hypothesis 3b: “Target country digitisation” effects acquiring firms’ CARs received from cross-border media M&A stronger than CARs received from domestic media M&A***

Acquirers buying targets diversifying its existing business portfolio generally receive lower CARs than acquirers buying targets from related industries (Morck et al., 1990; Berger & Ofek, 1995; Martynova & Renneboog, 2006). However, prior evidence suggests that these bad acquisitions are driven by managerial objectives, which is assumed not to be the case in the media industry. Chan-Olmsted and Chang (2005) argue that media conglomerates are not subject to the “diversification discount” due to a unique combination of certain media characteristics. Additionally, to survive “creative destruction” from “digital convergence” media firms attempt to gain operational synergies by, amongst others, pursuing digital expansion strategies. Operational synergies relate to economies of scale and scope (Chatterjee, 1986), which are greatly important for media firms. “Operational synergy potential” of the acquiring media firm is thus expected to drive CARs. “Operational synergy potential” is measured by the following media firm characteristics: digital expansion strategies, growth options (Tobin’s q) and degree of overlap in business activities with the target firm. Digital expansion strategies occur when media firms buy high-tech targets (digital media firm). Degree of overlapping acquirer and target business activities is added as a measure as it allows for economies of scope (Martynova & Renneboog, 2008). Furthermore, as media firms aim to expand sideways into activities perceived as complementary or as new growth areas (Doyle, 2013), media firms’ growth options are expected to yield operational synergies. Hence, the following hypotheses are:

***Hypothesis 4: Conglomerate media acquirers receive higher CARs than focusing media acquirers***

***Hypothesis 5a: In media M&A, “operational synergy potential” positively influences acquiring firms’ CARs***

***Hypothesis 5b: “Operational synergy potential” effects CARs received from conglomerate media M&A stronger than CARs received from focusing media M&A***

Furthermore, this paper examines short-term wealth effects for divesting media firms. In general, divestitures have proven to create value for shareholders of the divesting firm (Cusatis et al., 1993; Mulherin & Boone, 2000; Lee & Madhavan, 2010). Especially when the divestiture enhances efficiency by divesting an unrelated SBU and refocusing on a firm’s core business (Eckbo & Thorburn, 2008; Dittmar & Shivdasani, 2003). Also, for divesting media firms “operational synergy potential” is expected to be an important driver of CARs. “Operational synergy potential” for divesting media firms is measured by degree of diversification, financial constraints and growth options. Degree of diversification is included as a measure since a divestiture by a diversified firm allows for resolving

diseconomies of scope. According to the financing hypothesis, the decision to divest could arise from liquidity constraints (Dittmar & Shivdasani, 2003; Schlingemann et al., 2002). Therefore, divestitures by financially constrained media firms – expressed by their interest coverage ratio – signal diminished financial constraints and increased investment possibilities (Dittmar & Shivdasani, 2003). Especially in the media industry it is likely that firms choose to divest SBUs with outdated or unprofitable business models. The former frees up funds to be invested in firms and technologies that contribute to economies of scale and scope by keeping up with the current state of digitisation and digital convergence (Doyle, 2013). Hence, one could argue that divesting firms' growth options (Tobin's q) reflect its capacity to exploit these economies of scale and scope. This leads to the subsequent hypotheses:

***Hypothesis 6:*** *Divesting media firms' shareholders receive CARs significantly greater than zero*

***Hypothesis 7:*** *Focusing media divestors receive higher CARs than non-focusing media divestors*

***Hypothesis 8a:*** *In media divestitures, "operational synergy potential" positively influences parent firms' CARs*

***Hypothesis 8b:*** *"Operational synergy potential" influences CARs received from focusing divestitures stronger than CARs received from non-focusing divestitures*

The media industry has been greatly dynamic in terms of technological advances and regulations the last two decades as described in the introduction (Chon et al., 2003). Media economic forces have not been of continuous magnitude through-out the 20-year sample period. For this reason, one could expect that restructuring transactions announced in the earliest decade of the sample period yield different abnormal returns than transactions announced in the most recent decade. Following Noam (2016), the media industry can roughly be divided into three subsectors: traditional media, telecommunications and digital (internet) media. These subsectors are subject to distinctive market forces and technological developments. Therefore, one can assume that shareholders of acquirers and of divestors from distinct media subsectors receive dissimilar abnormal returns when pursuing a restructuring transaction.

***Hypothesis 9a:*** *CARs received from media M&A announced between 1999 and 2008 differ significantly from CARs received from media M&A announced between 2009 and 2018*

***Hypothesis 9b:*** *CARs received from media divestitures announced between 1999 and 2008 differ significantly from CARs received from media divestitures announced between 2009 and 2018*

***Hypothesis 10a:*** *Media acquirers from the traditional media sector, telecommunications sector and digital media sector receive significantly dissimilar CARs*

***Hypothesis 10b:*** *Media divestors from the traditional media sector, telecommunications sector and digital media sector receive significantly dissimilar CARs*

## **CHAPTER 4 Data and methodology**

This chapter focusses on the data and methodology used to answer the ten hypotheses set in the previous chapter. Section 4.1 describes the data collection process for both samples and the sources accessed to obtain the data. Section 4.2 discusses the construction of dependent and explanatory variables. Thereafter, in section 4.3, one can find the descriptive statistics. The last section, 4.4, elaborates on the research methodology in terms of econometrics.

### **4.1 Samples**

#### **4.1.1 Mergers and acquisitions sample**

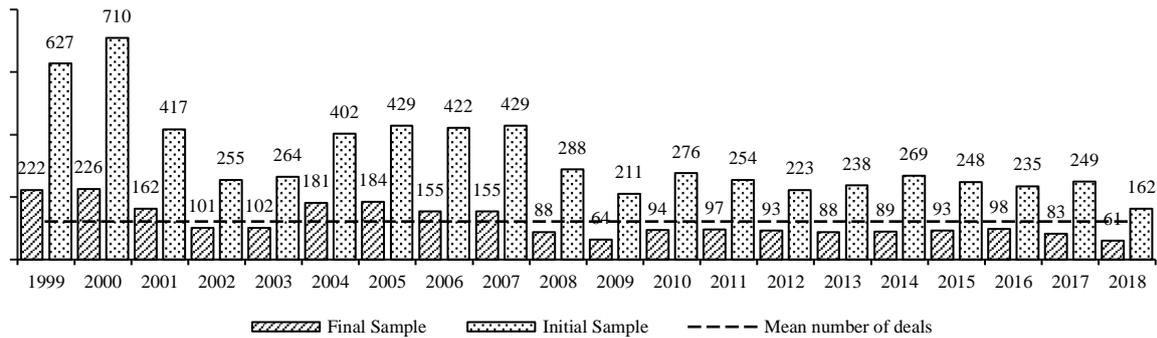
For this research a sample of completed M&A transactions, announced between January 1999 and December 2018, is collected from the Securities Data Company (SDC) database through Thomson One. Acquiring firms in the sample must be listed entities to allow for collection of stock price and accounting data, these firms are identified through Sedol codes. The sample includes both public and private targets. Stock price and accounting data is collected through FactSet and Datastream. Country level data on digitisation (internet usage, cellular subscriptions and broadband subscriptions) is obtained from the Worldbank database.

The initially collected sample of M&A deals should meet several requirements. First, at least 50.01% of the target firm must be acquired in the transaction, deal value must be disclosed and should minimally equal \$1 million (Moeller, Schlingemann & Stulz, 2004). The second requirement relates to the acquiring firm: its primary SIC code industry must be included in table 22 of appendix 2. Table 22 includes all industry SIC codes that correspond to all media sectors documented in table 1 following Noam (2016). These requirements yield an initial sample of 6,608 media M&A transactions.

To arrive at the final sample a significant number of deals is removed from the initial sample following further conditions. First, due to great regulatory disparity in the media industry among countries worldwide, I choose to solely include deals pursued by North American and Western European acquirers. Also, deals not completed within 1000 days from their announcement date (Moeller et al., 2004), and deals with non-retrievable acquirer Sedol codes are removed from the sample. After obtaining stock price and accounting data from FactSet and Datastream, deals with missing critical data are deleted from the sample. Following Moeller et al. (2004), I require the deal value to be at least 1% of the acquirers' market capitalisation. Furthermore, although SIC code industry 7375 and 7374 represent many digital media firms, they unfortunately also include few non-media related firms (e.g. e-commerce, online financial services, software development). Hence, all acquiring firms with primary industry SIC code 7375 and 7374 are checked manually. Subsequently, media-unrelated firms are deleted from the sample. After these manual adjustments, the final sample consists of 2,436 M&A deals.

**Figure 1a: Yearly distribution of media M&A transactions**

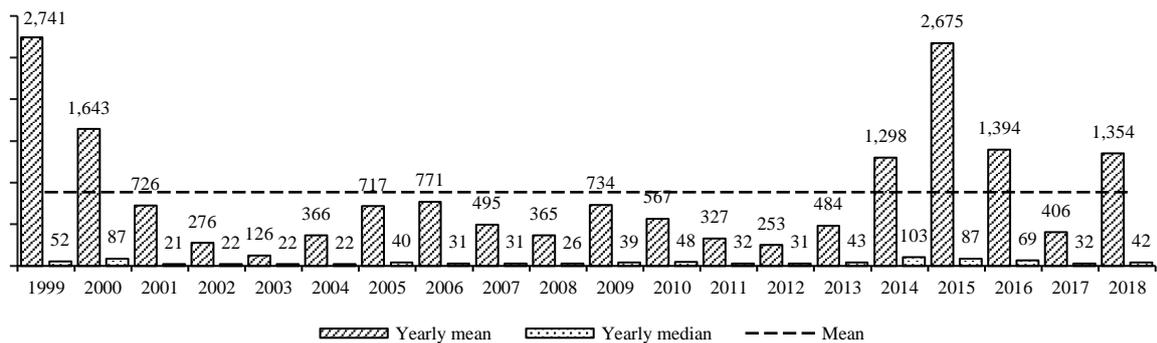
Annual distribution of M&A deals. Sample includes deals announced between January 1999 and December 2018 in North America and Western Europe. The dotted line indicates the average number of deals over this period based on the final sample



From figure 1a one can conclude that media M&A deals are unequally distributed over the sample period. When studying the dotted line, indicating the mean number of deals over the sample period, it becomes clear that the media M&A market has been less active from 2009 to 2018 in comparison to 1999 to 2008. This observable trend is possibly related to the fifth (1992 – 2000) and sixth (2003 – late 2007) merger wave, respectively the ‘mega-deal merger wave’ and the ‘globalisation and private equity merger wave’ (Martynova & Renneboog, 2008; Alexandridis et al., 2012). Interestingly, figure 1b shows that average deal value has increased sharply recent years, despite of a drop in 2017. The former indicates that, unless deal volume has declined recent years, more mega deals have occurred.

**Figure 1b: Yearly media M&A deal value (\$m)**

Mean and median deal value in million dollars from media M&A announced between January 1999 and December 2018 in North America and Western Europe, based on the final sample. The dotted line indicates the average deal value over the sample period



#### 4.1.2 Divestures (sell-offs) sample

Divestitures occur when a company spins-off, sells-off or carves-out an SBU. The final sample examined in this paper includes only media sell-off transactions. Unfortunately, I was able to identify a very limited number of equity carve-outs and spin-off transactions, therefore I excluded them from the analysis. The sample of media sell-off transactions is collected following the same approach as the media M&A sample. Again, the SDC database is used to obtain all media sell-off transactions announced between 1999 and 2018. The divesting firm (parent hereafter) must be publicly traded and its primary industry SIC code must be included in table 22 (appendix 2). The divested SBU (target hereafter) can be both, publicly traded and privately held. The deal value must be disclosed and equal \$1 million

minimally. In the transaction, 100% of the target must be acquired by the buy-side. This search yields an initial sample of 2,551 sell-offs. Further removals in the sample are based on conditions similar to the conditions set for the M&A sample. To recall, these are: (1) the transaction must be completed within 1000 days from announcement, (2) the parents' Sedol code must be retrievable, (3) the parent firm is North American or Western European, (4) stock price and accounting data required for the analyses must be available from Datastream or FactSet, (5) deal value must be at least 1% of parents' market capitalisation and (6) the business description belonging to the parent must indicate that it is truly a media company. After modifying the sample to the formerly mentioned conditions, a sample of 1,266 divestiture transactions remains.

**Figure 2a: Yearly distribution of media sell-off transactions**

Annual distribution of media sell-off deals. Sample includes deals announced between January 1999 and December 2018 in North America and Western Europe. The dotted line indicates the average number of deals over this period based on the final sample

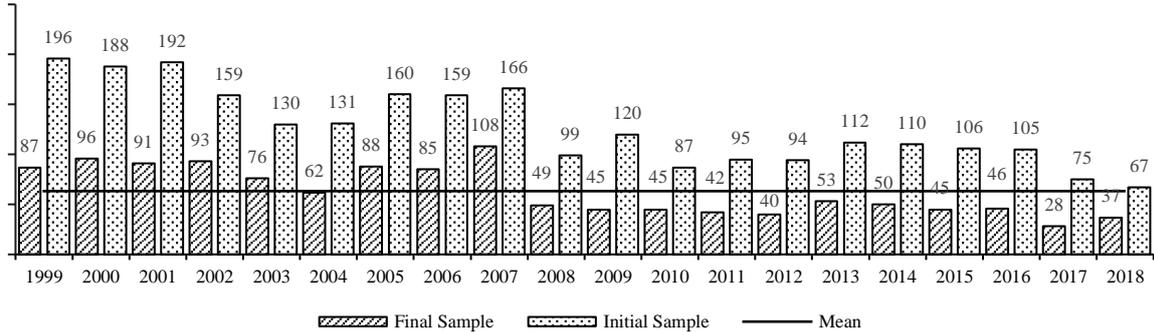
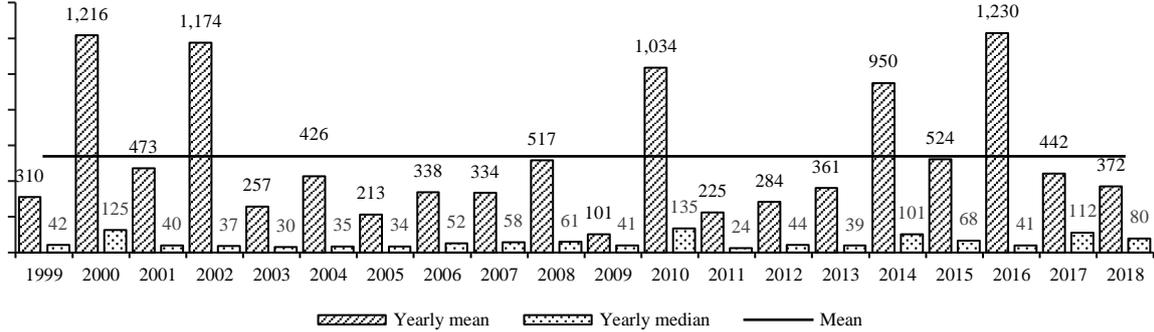


Figure 2a indicates that sell-off activity dropped after 2007 and hardly reached pre-2008 levels recent decade. According to Schlingemann et al. (2002), market liquidity for corporate assets determines whether a firm divests an SBU. One could assume that markets for media SBU's have been more illiquid from 2008 to 2018. This is a similar trend as one could observe from figure 1a: a less active media M&A market from 2009 to 2018. However, the distribution of average sell-off value (figure 2b) shows no major trends. Obviously, 2000, 2002, 2010, 2014 and 2016 were peak-years. Since 2016 average media sell-off value has decreased.

**Figure 2b: Yearly media sell-off transaction value (\$m)**

Mean and median deal value in million dollars from media sell-offs announced between January 1999 and December 2018 in North America and Western Europe, based on the final sample. The dotted line indicates the average deal value over the sample period.



## 4.2 Data construction

### 4.2.1 Short-term wealth effects

The dependent variables for the regression models in this research (see section 4.4.2) are *Cumulative Abnormal Returns (CARs)* received by the acquiring or divesting media firm. *CARs* are measurements of short-term wealth effects, calculated by event study methodology (MacKinlay, 1997). In finance literature, event studies have been applied to a wide variety of firm specific and economic events. The first step in an event study is defining events of interest. For this study, events I aim to examine are media M&A and sell-off transactions. Subsequently, the announcement dates of these transactions should be obtained, and the event period determined. The event period consists of both the estimation window and the event window, the latter covers the period over which the abnormal stock returns are cumulated. The parameters for the normal return model are estimated during the estimation window, the period prior to the event window. It is crucial that estimation window and event window do not overlap so that the estimators of the normal model parameters are not influenced by returns around the event. I calculate *CARs* based on two estimation windows, the primary estimation window exists of 250 trading days, corresponding to a full calendar year. This is a relatively long period, resulting in a precisely predicted normal return model. The media M&A and sell-off sample both contain firms pursuing multiple transactions during the sample period. To limit the risk of estimation window disturbance by prior takeover announcements of firms, I additionally calculate *CARs* over a six-month estimation window. The calculation of *CARs* based on a six-month estimation window (*CAR "short EW"* hereafter) is added to the analysis to ensure robustness. The risk of overlapping estimation windows decreases by applying a shorter estimation window. Hence, the second estimation window covers 125 trading days, corresponding to six months.

Abnormal returns are defined as the discrepancy between realised returns and the returns expected in case of no event, calculated from the normal model.  $AR_{i,t}$  is the abnormal return of firm  $i$  at day  $t$  :

$$AR_{it} = R_{it} - E(R)_{it} \quad (1)$$

Following McKinlay (1997), the market model proposed by Fama, Fisher, Jensen and Roll (1969) is applied to estimate the normal return model. As reference market indices the S&P Europe 350 for Western European firms and the S&P 500 for North American firms are used. Here,  $E(R)_{it}$  is the expected return of firm  $i$  at day  $t$ ,  $R_{mt}$  is the return of market portfolio  $m$  at day  $t$ . Furthermore,  $\hat{\alpha}_i$  is the intercept and  $\hat{\beta}_i$  is the slope of the estimated normal return model

$$E(R)_{it} = \hat{\alpha}_i + \hat{\beta}_i R_{mt} \quad (2)$$

The intercept and slope are estimated over a 250-day (125-day) estimation window. The estimation window starts at day  $t = -260$  ( $t = -135$ ) and ends at  $t = -11$ . *CARs* for the acquiring or divesting media firms are calculated as follows:

$$CAR_{t_1,t_2} = \sum_{t=t_1}^{t_2} AR_{it} \quad (3)$$

Function (3) shows that abnormal returns are summed over a specified number of days, dependent on the event window. I cumulate *CARs* over a three-day event window (-1,+1), following Andrade et al. (2001) and Mulherin and Boone (2000), and over an eleven-day event window (-5,+5) following Moeller and Schlingemann (2005) and Martynova and Renneboog (2006). To explain the drivers behind the calculated *CARs*, the impact of certain explanatory variables and control variables on *CARs* is tested through multiple regression models (see section 4.4.2). These variables are deal-, country- and firm-level characteristics, as discussed in the next section (4.2.2).

#### **4.2.2 Explanatory variables**

After calculating *CARs* and examining their significance in the univariate analysis (see section 4.4.1), the drivers behind these *CARs* remain unclear. Hence, variables are constructed that represent drivers that, according to the hypotheses, potentially influence stock price reactions (*CARs*) to media M&A or sell-off announcements. This section describes the construction of the explanatory variables included in the regression models applied in the multivariate analysis (see section 4.4.2).

The first proposed driver of *CARs* in media M&A is “target country digitisation”. Target country digitisation is especially expected to drive *CARs* in cross-border M&A and is expressed by the following three variables: *internet usage*, *cellular subscriptions* and *broadband subscriptions*. Data to construct these variables is obtained through the Worldbank, published by the International Telecommunications Union.

In this paper, conglomerate M&A is defined as a M&A transaction in which the acquiring firm has a dissimilar primary two-digit industry SIC codes than the target firm. A M&A deal is categorised as focusing when the primary two-digit industry SIC code is shared (Hubbard & Palia, 1999). The second proposed driver of *CARs* in media M&A is “operational synergy potential” and is expressed by digital expansion strategies, growth options and degree of overlapping business activities of target and acquirer. The variable *high-tech target* is a proxy for the acquiring firms’ digital expansion strategy. Furthermore, I constructed a variable to proxy acquirers’ growth options and one measuring the degree of overlap in target and acquirer activities: *growth (Tobin’s q)* and *SIC code overlap %*. These variables are expected to influence *CARs* in conglomerate M&A stronger than in focusing M&A. See table 6 for further clarification of the construction of the mentioned explanatory variables.

**Table 6: Explanatory variables included in the media M&A regression models**

<b>Variable name</b>	<b>Description</b>
<i>Internet usage</i>	Variable representing internet usage in a given country. Measured by calculating individuals using internet as percentage of total population. “Internet users are individuals who have used the internet in the last three months. Internet can be used via computer, mobile phone, personal digital assistant, game machine, digital TV etc.” (Worldbank, 2019)
<i>Cellular subscriptions</i>	Variable representing the amount of mobile cellular subscriptions per 100 persons in a given country. “Mobile cellular telephone subscriptions are subscriptions to a public mobile telephone service that provides access to public switched telephone networks using cellular technology. The indicator includes the number of post-paid subscriptions, and the number of active prepaid accounts (i.e. used during the last three months)” (Worldbank, 2019)
<i>Broadband subscriptions</i>	Variable representing the amount of fixed broadband subscriptions per 100 persons living in a given country. This refers to fixed subscriptions to high-speed access to the public internet, at downstream speed ( $\geq 256$ kbit/s). Including cable modem, DSL, fiber-to-the-home/building, other fixed (wired)-broadband subscriptions, satellite broadband and terrestrial fixed wireless broadband. Includes both residential subscriptions and subscriptions for organisations (Worldbank, 2019)
<i>High tech target</i>	Dummy variable that equals one when the target company is a pure high-tech company based on its primary industry SIC code. According to Kile and Philips (2009) these are three-digit industry SIC codes belonging to high-tech firms: 283, 357, 366, 367, 382, 384, 481, 482, 489, 737, 873. SIC codes are obtained from Thomson One. Proxy variable for digital expansion strategies
<i>SIC code overlap %</i>	Variable representing the extent to which acquirer and target business activities overlap. Constructed by obtaining all acquirer and all target four-digit industry SIC codes from Thomson One, counting the overlapping SIC codes and dividing that number by the number of acquirer four-digit SIC codes ( <i>no. of overlapping four-digit SIC codes/ no. of all acquirer four-digit SIC codes</i> )
<i>Growth (Tobin’s q)</i>	Continuous variable representing a proxy for growth options. Calculated following Chung and Pruitt (1994) as $(Market\ Value\ of\ Equity + Preferred\ Stock + ((Current\ Liabilities - Current\ Assets) + Long\ Term\ Debt)) / Total\ Assets$ . Data is obtained from FactSet 30 trading days before the announcement date of the transaction
<i>Cross-border M&amp;A</i>	Dummy variable that equals one if the media firm acquires a target firm located in a different country than the acquirers’ home country and zero if both acquirer and target are located in the same country
<i>Conglomerate M&amp;A</i>	Dummy variable that equals one if the acquiring media firm and the target do not share the same two-digit primary SIC code industry and zero otherwise. SIC code obtained from Thomson One
<i>Traditional media</i>	Dummy variable that equals one if the acquiring firm is a traditional media firm and zero otherwise. Based on SIC macro code name, obtained from Thomson One
<i>Telecommunications</i>	Dummy variable that equals one if the acquiring firm is a telecommunication firm and zero otherwise. Based on SIC macro code name, obtained from Thomson One
<i>Digital media</i>	Dummy variable that equal one if the acquiring firm is a digital media firm and zero otherwise. Based on SIC macro code name obtained from Thomson One
<i>Period 1</i>	Dummy variable that equals one if the transaction was announced between 1999 and 2008 and zero otherwise
<i>Period 2</i>	Dummy variable that equals one if the transaction was announced between 2009 and 2018 and zero otherwise

A focusing media sell-off transaction occurs when a parent firm sells off an SBU from a primary two-digit SIC code industry different from its own primary two-digit SIC code industry. A sell-off transaction is non-focusing when a firm sells an SBU sharing the same primary two-digit SIC code industry (Schlingemann et al., 2002). CARs from media sell-offs are also believed to be driven by operational synergy potential, expressed by parent firm characteristics: growth options, financial constraints and diversification. *Growth (Tobin’s q)* is constructed as a proxy variable for growth options and *interest coverage ratio* is a proxy variable for financial constraints. A detailed description of variables constructed to proxy these characteristics is presented by table 7.

The media M&A and sell-off regression models both include control variables (see section 4.4.2). Deal-level control variables included in M&A regression models are: *target status*, *method of payment*, *attitude*, and *relative value* to control for target size. Ideally the relative size is calculated by dividing target size (total assets or market capitalisation) by acquirer size, however financial data is not available for private targets in the sample. Hence, *relative value* is calculated by dividing deal value by acquirer market capitalisation. I also include firm-level variables to control for acquiring firm characteristics. To control for acquirer size,  $\ln(1 + \text{market capitalisation})$  or  $\ln(1 + \text{total assets})$  is added. *Return on assets* or *EBITDA margin* is included to control for acquirer profitability and *debt-to-equity ratio* or *debt-to-assets ratio* is meant to control for acquiring firm leverage.

In the sell-off regression model *relative value*,  $\ln(1 + \text{market capitalisation})$  or  $\ln(1 + \text{total assets})$ , *return on assets* or *EBITDA margin* are also included. These variables control for the same purposes as in the M&A models. A detailed description of all control variables included in the regression models can be found in tables 23 and 24 in appendix 3.

**Table 7: Explanatory variables included in the media sell-off regression models**

Variable name	Description
<i>Growth (Tobin's q)</i>	Continuous variable representing a firm's growth options. Calculated following Chung and Pruitt (1994) as $(\text{Market Value of Equity} + \text{Preferred Stock} + ((\text{Current Liabilities} - \text{Current Assets}) + \text{Long Term Debt})) / \text{Total Assets}$ . Data is obtained from FactSet 30 trading days before the announcement date of the transaction
<i>Interest coverage ratio</i>	Continuous variable as a proxy for parent firms' financial constraints. Calculated as $\text{EBIT} / \text{Interest Expense}$ . An interest coverage ratio below 1.5 indicates that it is questionable whether a firm can service its interest payments. Data is obtained from FactSet 30 trading days before the announcement date of the transaction
<i>Parent diversification</i>	Continuous variable representing the number of four-digit SIC code industries the parent firm is active in. SIC codes obtained from Thomson One
<i>Focusing sell-off</i>	Dummy variable that equals one when a parent firm sells off an SBU from a primary two-digit SIC code industry different from its own primary two-digit SIC code industry and zero otherwise. SIC codes obtained from Thomson One
<i>Traditional media</i>	Dummy variable that equals one if the parent firm is a traditional media firm and zero otherwise. Based on SIC macro code name, obtained from Thomson One
<i>Telecommunications</i>	Dummy variable that equals one if the parent firm is a telecommunication firm and zero otherwise. Based on SIC macro code name, obtained from Thomson One
<i>Digital media</i>	Dummy variable that equal one if the parent firm is a digital media firm and zero otherwise. Based on SIC macro code name, obtained from Thomson One
<i>Period 1</i>	Dummy variable that equals one if the transaction was announced between 1999 and 2008 and zero otherwise
<i>Period 2</i>	Dummy variable that equals one if the transaction was announced between 2009 and 2018 and zero otherwise

### 4.3 Descriptive statistics

For this research two distinctive datasets are used (1) the media M&A dataset and (2) the media sell-off dataset. This section exhibits summary statistics for the explanatory and control variables included in the regression models (see section 4.4.2). Tables 8 and 11 present the amount of transactions per subsector and period. Tables 9, 10 and 12 show the mean, median and standard deviation of the explanatory and control variables per restructuring strategy. Additionally, the tables show the statistical significance of differences in values for these variables between different restructuring strategies (e.g. cross-border/domestic M&A, focusing/conglomerate M&A, non-focusing/focusing sell-offs).

**Table 8: Media M&A sample overview**

This table shows the absolute and relative number of transactions for the three subsectors: traditional media, telecommunications and digital media. Additionally, it shows the distribution of transactions over two ten-year sample periods. Transactions are sorted by SIC macro code names obtained through Thomson One. In domestic media M&A, both target and acquirer are located in the same country. In cross-border media M&A, target and acquirer are located in different countries. In industry focusing media M&A, target and acquirer share the same primary two-digit SIC code industry. In conglomerate media M&A, target and acquirer do not share the same primary two-digit industry SIC code.

<i>Sample overview M&amp;A</i>	Period 1 (1999 – 2008)		Period 2 (2009 – 2018)		Total	
	Observations	Fraction	Observations	Fraction	Observations	Fraction
Traditional media	671	.43	335	.39	1,006	.41
Telecommunications	475	.30	256	.30	731	.30
Digital media	430	.27	269	.31	699	.29
Total	1,576	1.00	860	1.00	2,436	1.00
Fraction cross-border		.27		.30		.28
Fraction conglomerate		.37		.46		.40

**Table 9: Descriptive statistics domestic and cross-border media M&A**

This table presents an overview of the means, medians and standard deviations of the variables for 2,436 media M&A transactions. The 2,436 transactions include 678 cross-border transactions and 1,758 domestic transactions. Means are compared by applying independent sample T-tests. Differences are shown in column (7), stars denote statistical significance at \*10%, \*\*5% and \*\*\*1% level. Explanatory variables “internet usage”, “broadband subscriptions” and “cellular subscriptions” represent “target country digitisation”. Return on assets and EBITDA margin are winsorized at 2.5% level in both tails. Relative value and debt-to-equity ratio are winsorized at 2.5% level in the right tail. In domestic media M&A, both target and acquirer are located in the same country. In cross-border media M&A, target and acquirer are located in different countries.

Panel A	Domestic				Cross-border				Difference	
	N (obs.)	Mean (1)	Median (2)	$\sigma$ (3)	N (obs.)	Mean (4)	Median (5)	$\sigma$ (6)	(7) = (1)-(4)	t-statistic (8)
<i>Country-level variables</i>										
Internet usage	1,679	62.76	67.97	18.11	636	57.77	64.82	24.16	4.99***	5.38
Cellular subscriptions	1,720	81.12	82.94	31.52	651	87.11	91.06	34.39	-5.99***	-4.03
Broadband subscriptions	1,686	18.18	20.23	12.50	606	18.26	19.62	12.91	-.08	-.13
<i>Deal-level variables</i>										
Attitude	1,758	.99	1.00	.10	678	.97	1.00	.16	.02***	2.91
Method of payment	1,758	.42	.00	.49	678	.48	.00	.50	-.06***	-2.70
Target status	1,758	.13	.00	.34	678	.12	.00	.32	.01	.94
Relative value	1,758	.28	.09	.50	678	.20	.05	.40	.08***	3.57
<i>Firm-level variables</i>										
Ln (1+Market cap.)	1,758	6.22	6.13	2.30	678	7.06	7.07	2.39	-.84***	-7.99
Ln (1+Total assets)	1,758	6.03	5.92	2.43	678	6.79	6.69	2.49	-.76***	-6.87
Debt-to-equity ratio	1,758	1.01	.41	1.71	678	.87	.45	1.30	.14*	1.93
Debt-to-assets ratio	1,758	.23	.19	.21	678	.22	.21	.18	.00	.34
Return on assets	1,758	.07	.10	.16	678	.10	.12	.14	-.03***	-3.93
EBITDA margin	1,758	.06	.16	.48	678	.13	.18	.37	-.07***	-3.40

**Table 10: Descriptive statistics focusing and conglomerate media M&A**

This table presents an overview of the means, medians and standard deviations of the variables for 2,436 media M&A transactions. The 2,436 transactions include 1,462 focusing transactions and 974 conglomerate transactions. Means are compared by applying independent sample T-tests. Differences are shown in column (7), stars denote statistical significance at \*10%, \*\*5% and \*\*\*1% level. Explanatory variables “high-tech target”, “SIC code overlap %” and “growth (Tobin’s q)” represent “operational synergy potential”. Return on assets and EBITDA margin are winsorized at 2.5% level in both tails. Relative value and debt-to-equity ratio are winsorized at 2.5% level in the right tail. In focusing media M&A, target and acquirer share the same primary two-digit SIC code industry. In conglomerate media M&A, target and acquirer do not share the same primary two-digit industry SIC code.

Panel B	Focusing M&A				Conglomerate M&A				Difference	
	N (obs.)	Mean (1)	Median (2)	$\sigma$ (3)	N (obs.)	Mean (4)	Median (5)	$\sigma$ (6)	(7) = (1)-(4)	t-statistic (8)
<i>Deal-level variables</i>										
High tech target	1,462	.55	1.00	.50	974	.45	.00	.50	.10***	4.85
SIC code overlap %	1,462	.54	.50	.34	974	.17	.00	.24	.37***	29.82
Attitude	1,462	.98	1.00	.12	974	.99	1.00	.11	-.00	-.56
Method of payment	1,462	.43	.00	.49	974	.46	.00	.50	-.03*	-1.70
Target status	1,462	.13	.00	.34	974	.12	.00	.32	.02	1.12
Relative value	1,462	.26	.08	.47	974	.25	.07	.49	.00	.21
<i>Firm-level variables</i>										
Growth (Tobin’s q)	1,462	2.26	1.35	2.80	974	2.13	1.26	2.80	.13	1.16
Ln (1+Market cap.)	1,462	6.57	6.44	2.31	974	6.27	6.04	2.41	.30***	3.08
Ln (1+Total assets)	1,462	6.35	6.23	2.45	974	6.08	5.94	2.49	.26***	2.59
Debt-to-equity ratio	1,462	1.04	.46	1.66	974	.87	.39	1.51	.17**	2.54
Debt-to-assets ratio	1,462	.24	.21	.21	974	.21	.18	.18	.03***	3.67
Return on assets	1,462	.08	.11	.15	974	.08	.11	.16	-.00	-.60
EBITDA margin	1,462	.09	.18	.46	974	.06	.15	.45	.03	1.57

**Table 11: Media sell-off sample overview**

This table shows the absolute and relative number of transactions in the three subsectors: traditional media, telecommunications and digital media. Additionally, it shows the distribution of transactions over two ten-year sample periods. Transactions are sorted by SIC macro code names obtained through Thomson One. In a non-focusing media sell-off, the parent divests a related SBU based on its primary two-digit SIC code. In a focusing media sell-off, a parent divests an unrelated SBU based on its primary two-digit SIC code.

<i>Sample overview sell-offs</i>	Period 1 (1999 – 2008)		Period 2 (2009 – 2018)		Total	
	Observations	Fraction	Observations	Fraction	Observations	Fraction
Traditional media	389	.46	209	.49	598	.47
Telecommunications	365	.44	161	.37	526	.42
Digital media	81	.10	61	.14	142	.11
Total	835	1.00	431	1.00	1,266	1.00
Fraction industry focusing	.42		.43		.43	

**Table 12: Descriptive statistics non-focusing and focusing media sell-offs**

This table presents an overview of the means, medians and standard deviations of the variables for 1,266 media sell-off transactions. These 1,266 transactions include 726 non-focusing sell-off transactions and 540 focusing sell-off transactions. Means are compared by applying independent sample T-tests. The difference is shown in column (7), stars indicate statistical significance at \*10%, \*\*5% and \*\*\*1% level. Explanatory variables “parent diversification”, “interest coverage ratio” and “growth (Tobin’s q)” represent “operational synergy potential”. Relative value, interest coverage ratio, return on assets and EBITDA margin are winsorized at 2.5% level in both tails. Debt-to-asset ratio and growth (Tobin’s q) are winsorized at 1% level in the right tail. In a non-focusing media sell-off, the parent divests a related SBU based on its primary two-digit SIC code. In a focusing media sell-off, a parent divests an unrelated SBU based on its primary two-digit SIC code.

Panel C	Non-focusing sell-off				Focusing sell-off				Difference	
	N (obs.)	Mean (1)	Median (2)	$\sigma$ (3)	N (obs.)	Mean (4)	Median (5)	$\sigma$ (6)	(7) = (1)-(4)	t-statistic (8)
<i>Deal-level variables</i>										
Attitude	726	.99	1.00	.11	540	.99	1.00	.07	-.01	-1.24
Relative value	726	.30	.05	.62	540	.17	.02	.46	.13***	4.20
<i>Firm-level variables</i>										
Parent diversification	726	4.53	4.00	2.62	540	5.45	5.00	2.81	-.92***	-6.01
Ln (Market cap.)	726	7.32	7.29	2.84	540	8.18	8.63	2.59	-.86***	-5.53
Ln (1+Total assets)	726	8.02	7.89	2.56	540	8.63	9.03	2.52	-.61***	-4.24
Interest coverage ratio	726	2.32	2.26	9.77	540	4.25	3.05	8.65	-1.93***	-3.65
Debt-to-assets ratio	726	.38	.35	.26	540	.33	.31	.20	.05***	3.80
Growth (Tobin’s q)	726	1.18	.97	.92	540	1.32	.95	1.18	-.25	-1.59
Return on assets	726	.09	.11	.11	540	.10	.11	.09	-.01**	-2.09
EBITDA margin	726	.19	.23	.23	540	.20	.21	.18	-.01	-.75

When thoroughly examining the distributions of all variables in STATA, I find that some variables show extreme values due to outliers causing skewness and kurtosis. These variables are *EBITDA margin*, *debt-to-equity ratio*, *return on assets* and *relative value* in the M&A dataset. To adjust for non-normality, I winsorize these variables at 1% and 2.5% level in both tails or only in the right tail for positive variables (*relative value* and *debt-to-equity ratio*). I find that winsorizing at 2.5% level results in a decent distribution for all variables. In the sell-off dataset I winsorize the variables *relative value*, *interest coverage ratio*, *debt-to-assets ratio*, *growth (Tobin's q)*, *return on assets* and *EBITDA margin*. *Relative value*, *interest coverage ratio*, *return on assets* and *EBITDA margin* show decent distributions when winsorized at 2.5% level in both tails. *Debt-to-assets ratio*, *growth (Tobin's q)* are winsorized at 1% level in the right tail only.

Table 8 confirms what was already presented by figure 1a: media M&A transactions are unequally distributed over the sample period. Furthermore, within the sample, the majority (41%) of the media M&A transactions is pursued by traditional media companies. Traditional media includes books, video's, newspapers, magazines etc. (see table 1). The former might indicate that traditional media firms have the most urge to engage in restructuring activities to optimise their business models. Of the total sample, 28% of the media M&A transactions are cross-border and 40% of the transactions are conglomerate. Both are considerable shares, confirming that these M&A strategies are very common within the media industry.

What stands out from table 9 is that the average level of target country *internet usage* is significantly higher for domestic M&A transactions than for cross-border M&A transactions. This might imply that acquirers do not pursue cross-border M&A because of more *internet usage* in target countries. However, the level of target country *cellular subscriptions* is higher for cross-border M&A than for domestic M&A. There is no significant difference in the level of target country *broadband subscriptions* between cross-border and domestic M&A. Additionally, the transaction value relative to the acquirers' market capitalisation, *relative value*, tends to be significantly higher for domestic M&A than for cross-border M&A, whereas cross-border acquirers are significantly larger in terms of market capitalisation and total assets than domestic acquirers. Acquirer profitability is measured in terms of *return on assets* and *EBITDA margin*, cross-border acquirers are significantly more profitable than domestic acquirers. Lastly, considering the *debt-to-equity ratio*, cross-border acquirers seem to be significantly less financially levered than domestic acquirers. However, in terms of *debt-to-assets ratio*, there is no significant difference between acquirers pursuing the two strategies.

Insights in the values of variables in focusing and conglomerate M&A transactions are provided by table 10. Focusing acquirers are significantly more likely to acquire a target with a primary SIC code indicating high-tech business activities. Logically, conglomerate acquirers have significantly less overlap with their targets in terms of four-digit industry SIC codes than focusing acquirers have. No

significant difference is found in *growth (Tobin's q)*. Focusing acquirers significantly exceed conglomerate acquirers in terms of size (*ln (market capitalisation)* and *ln (total assets)*), financial leverage (*debt-to-assets ratio* and *debt-to-equity ratio*) and profitability (*return on assets*).

When analysing table 11, one can conclude that media sell-off volume has been higher in the first decade of the sample period in comparison to the second decade. Most sell-off activity (47%) has occurred in the traditional media subsector, which brings me to the same conclusion as drawn earlier: traditional media firms have most urge to engage in restructuring activities to optimise their business models. The share of transactions that is focusing, hence selling off an unrelated SBU, is 43%.

Ultimately, table 12 presents observations for the media sell-off sample. First, the value of the sell-off transaction relative to parent market capitalisation, *relative value*, is significantly higher for non-focusing sell-offs than for focusing sell-offs. The measure of financial constraints, *interest coverage ratio*, shows that parents pursuing industry focusing sell-offs are significantly less financially constrained than parents pursuing non-focusing sell-offs. Furthermore, the variables representing profitability indicate that focusing parents are solely significantly more profitable in terms of *return on assets*. Yet, parents engaged in focusing sell-offs are more diversified, and greater in size (*ln (market capitalisation)* and *ln (total assets)*) than parents firms engaged in non-focusing sell-off transactions. There is no significant difference in *Growth (Tobin's q)* between focusing and non-focusing parents.

## **4.4 Methodology**

### **4.4.1 Univariate analysis**

Before moving to more thorough multivariate analyses, a univariate analysis is conducted to answer the first research question: “*Does corporate restructuring activity in the media industry result in short-term wealth effects?*”. The formerly formulated research question is answered by seven hypotheses, hypotheses 1, 2, 4, 6, 7, 8, 9 and 10. These hypotheses are: (1) Acquiring media firms' shareholders receive *CARs* significantly equal to zero. (2) Cross-border media acquirers receive lower *CARs* than domestic media acquirers. (4) Conglomerate media acquirers receive higher *CARs* than focusing media acquirers. (6) Divesting media firms' shareholders receive *CARs* significantly greater than zero. (7) Focusing media divestors receive higher *CARs* than non-focusing media divestors. (9) *CARs* received from media restructuring transactions announced between 1999 and 2008 differ significantly from *CARs* received from media restructuring transactions announced between 2009 and 2018. (10) Media firms from the traditional media sector, telecommunications sector and digital media sector receive significantly dissimilar *CARs* in restructuring transactions.

In the univariate analysis I use two statistical tests to assess whether *CARs* calculated by event study methodology significantly differ from zero. Event study methodology is discussed in detail in section 4.2.1. The first test applied is the traditional T-test (4) of Brown and Warner (1980). The significance

of the  $CARs$  is tested over both, the three-day event window  $(-1,+1)$ , and the eleven-day event window  $(-5,+5)$ . Additionally, various distinct sample group means (media subsectors and sample periods) are compared by two sample T-tests with unequal variances.

$$T_{Brown\ and\ Warner} = \frac{CAAR(t_1, t_2)}{\sqrt{var(CAAR(t_1, t_2))}} \quad (4)$$

The second statistical method used to verify whether  $CARs$  statistically differ from zero is the T-test proposed by Boehmer, Masumeci and Poulsen (1991). This test is used because of its robustness to event-induced variances of stock returns. The T-test used in this paper combines the Patell (1976) “standardized-residual test” and the regular cross-sectional test. First, the abnormal returns in the event window are standardised by its estimated standard deviation. From the time-series of abnormal returns of the estimation window this standard deviation is estimated (5). The standardised abnormal returns are cumulated over the event window, as basic abnormal returns (6). The standard deviation of  $\overline{CSAR}(t_1, t_2)$  is, like the Brown and Warner (1980) test, estimated from the cross-section of event-window abnormal returns (7). The mix allows for event-induced variance disparities and includes estimation window information, enhancing both power and efficiency. See function (8) for application of the Boehmer et al. (1991) T-test.

$$SAR_{i,t} = \frac{AR_{i,t}}{\hat{\sigma}_i \sqrt{1 + \frac{1}{T} + \frac{(R_{mt} - R_m)^2}{\sum_{t=1}^T (R_{mt} - R_m)^2}}} \quad (5)$$

$$\overline{CSAR}(t_1, t_2) = \frac{1}{N} \sum_{i=1}^N CSAR(t_1, t_2) \quad (6)$$

$$S(\overline{CSAR}) = \sqrt{\frac{1}{N(N-1)} \sum_{i=1}^N (CSAR(t_1, t_2) - \overline{CSAR}(t_1, t_2))^2} \quad (7)$$

$$T_{Boehmer\ et\ al.} = \frac{\overline{CSAR}(t_1, t_2)}{S(\overline{CSAR})} \quad (8)$$

#### 4.4.2 Multivariate analysis

To answer the second research question – “*What drives short-term wealth effects of restructuring activity in the media industry?*” – multivariate analyses are essential. The dependent variables in the analyses are the  $CARs$  found for each transaction type (media M&A or media sell-off) calculated by the market model approach based on a 250-trading day estimation window. Since the stock market reactions are assumed to be most pronounced during the three-day event window  $(-1,+1)$ , the dependent variable is  $CAR_{(-1,+1)}$  (unless specified otherwise). For media M&A and sell-off transactions the following OLS regression models are estimated to answer hypothesis 3a, 5a and 8a:

$$CAR_{M\&A_{i,t}} = \alpha + \beta_1 target\ country\ internet\ usage_{j,t} + \beta_2 target\ country\ cellular\ subscriptions_{j,t} + \beta_3 target\ country\ broadband\ subscriptions_{j,t} + \beta_4 growth\ (Tobin's\ q)_{i,t} + \beta_5 High - tech\ target + \beta_6 SIC\ overlap\ \% + \beta_7 cross - border\ M\&A + \beta_8 conglomerate\ M\&A + \beta_9 period + \beta_{10} subsector + \beta_{11} cov + \beta_{12} firm\ FE + \beta_{13} year\ FE + \varepsilon_{i,t} \quad (9)$$

$$CAR_{sell-off_{i,t}} = \alpha + \beta_1 interest\ coverage\ ratio_{i,t} + \beta_2 growth\ (Tobin's\ q)_{i,t} + \beta_3 parent\ diversification_{i,t} + \beta_4 focusing\ sell - off + \beta_5 period + \beta_6 subsector + \beta_7 cov + \beta_8 firm\ FE + \beta_9 year\ FE + \varepsilon_{i,t} \quad (10)$$

For measuring the differential effect of “target country digitisation” and “operational synergy potential” on certain restructuring strategies the regression models above are adjusted. In the regression models below, all explanatory variables interact with dummy variables representing a specific restructuring strategy (e.g. cross-border, conglomerate, focusing). The regression models below are meant to answer hypothesis 3b, 5b and 8b:

$$\begin{aligned}
CAR_{M\&A_{i,t}} = & \alpha + \beta_1 target\ country\ internet\ usage_{j,t} + \beta_2 target\ country\ cellular\ subscriptions_{j,t} + & (11) \\
& \beta_3 target\ country\ broadband\ subscriptions_{j,t} + \beta_4 cross\ border\ M\&A + \\
& \beta_5 target\ country\ internet\ usage_{j,t} * \beta_{CB} + \beta_6 target\ country\ cellular\ subscriptions_{j,t} * \beta_{CB} + \\
& \beta_7 target\ country\ broadband\ subscriptions_{j,t} * \beta_{CB} + \beta_8 growth\ (Tobin's\ q)_{i,t} + \beta_9 High - tech\ target + \\
& \beta_{10} SIC\ overlap\ \% + \beta_{11} conglomerate\ M\&A + \beta_{12} growth\ (Tobin's\ q)_{i,t} * \beta_{cong} + \beta_{13} High - \\
& tech\ target * \beta_{cong} + \beta_{14} SIC\ overlap\ \% * \beta_{cong} + \beta_{15} period + \beta_{16} subsector + \beta_{17} cov + \beta_{18} firm\ FE + \\
& \beta_{19} year\ FE + \varepsilon_{i,t}
\end{aligned}$$

$$\begin{aligned}
CAR_{sell-off_{i,t}} = & \alpha + \beta_1 interest\ coverage\ ratio_{i,t} + \beta_2 growth\ (Tobin's\ q)_{i,t} + & (12) \\
& \beta_3 parent\ diversification_{i,t} + \beta_4 focusing\ sell - off + \beta_5 interest\ coverage\ ratio_{i,t} * \beta_{focus} + \\
& \beta_6 growth\ (Tobin's\ q)_{i,t} * \beta_{focus} + \beta_7 parent\ diversification_{i,t} * \beta_{focus} + \beta_8 period + \beta_9 subsector + \\
& \beta_{10} cov + \beta_{11} firm\ FE + \beta_{12} year\ FE + \varepsilon_{i,t}
\end{aligned}$$

<i>CAR</i>	= Cumulative abnormal return
<i>cong</i>	= Dummy variable for conglomerate M&A
<i>CB</i>	= Dummy variable for cross-border M&A
<i>focus</i>	= Dummy variable for focusing sell-off
<i>period</i>	= Dummy variables for period 1 (1999 – 2008) and period 2 (2009 – 2018)
<i>subsector</i>	= Dummy variables for digital media sector, traditional media sector and telecommunications sector
<i>cov</i>	= Control variables
<i>country FE</i>	= Country fixed effects
<i>year FE</i>	= Year fixed effects

From all linear regression models presented above I also constructed non-linear regression models by creating quartiles of each explanatory variable. The non-linear regression models allow for examining effects of quartiles of an explanatory variable relative to its first quartile (baseline). The non-linear regression models might provide insights in underlying effects of explanatory variables that are hard to capture when the explanatory variable is pooled.

At firm-level, including fixed effects in a model captures all factors that do not vary over time for each of the acquiring/divesting media firms in the sample. Year fixed-effects are added to the regression models to capture various trends and events throughout the sample years. Examples of these macroeconomic events are currency crises, mispricing or changes in market valuation. To ensure robustness, testing for multicollinearity and heteroscedasticity is required. An important assumption of the OLS regression model is error term homoscedasticity, inferring a constant variance in the error term. I test for heteroscedasticity through the Breusch-Pagan test in STATA. STATA makes it possible to correct for heteroscedasticity by clustering standard errors at firm-level. Multicollinearity is prevented by creating a correlation matrix and assessing correlations between two variables (appendix 4). As a cut-off level for correlation between two variables included in a regression model I maintain 0.8 (Farrar & Glauber, 1967).

## CHAPTER 5 Results

This chapter is devoted to discussing and summarising the results found through univariate and multivariate research methods. First, section 5.1 presents the findings of the univariate analysis. This covers the calculations of cumulative abnormal returns (*CARs*) received from announcements of corporate restructuring transactions in the media industry. Thereafter, section 5.2 discusses the findings of the multivariate analysis. The multivariate analysis consists of linear and non-linear regression models designed to examine whether “target country digitisation” and “operational synergy potential” drive *CAR* (-1,+1) received from announcements of corporate restructuring transactions in the media industry. The purpose of section 5.3 is to provide answers to all hypotheses set in chapter 3.

### 5.1 Univariate analysis

#### 5.1.1 Short-term wealth effects M&A

To determine the short-term wealth effects of restructuring activities, the cumulative abnormal returns (*CARs*) for the acquirers’ shareholders when announcing a media M&A transaction and for parent firms’ shareholders when announcing a media sell-off transaction are calculated. These calculations are performed over a three-day event window (-1,+1) and over an eleven-day event window (-5,+5). The estimation window for the *CAR* calculations covers 250 trading days, equivalent to 12 months. *CARs* are calculated over the full sample, three media subsectors and two distinct ten-year sample periods. The three media subsectors are traditional media, telecommunications and digital media. The two ten-year sample periods are period 1 (1999 – 2008) and period 2 (2009 – 2018). For the media M&A sample an overview of the calculated *CARs* and differences in *CARs* between restructuring strategies, subsectors and period 1 and 2 are displayed in table 13. The same is shown for the media sell-off sample in table 15. *CARs* calculated are statistically verified by conducting Brown and Warner (1980) T-tests. Unpaired two-sample T-test with unequal variances are applied to statistically measure differences in *CARs*. Cumulative standardised abnormal returns (*CSAR*) – abnormal returns allowing for event-induced variance changes (see section 4.4.1) – are presented in table 14 for media M&A transactions and in table 16 for media sell-off transactions. *CSARs* are statistically validated through the T-test introduced by Boehmer et al. (1991). In appendix 5 one can find tables 27 and 28, presenting additional *CAR* calculations, based on a six-month estimation window. *CARs* based on a six-month estimation window (“Short EW” hereafter) are included to check whether *CAR* calculations suffer from estimation window disturbance. Disturbance may be caused by announcements of multiple transactions by a certain firm within 250-trading days, resulting in overlapping estimation windows and hence unreliable normal return models. By examining tables 13 and 14, presenting *C(S)ARs* from media M&A transactions, one can answer hypothesis 1, 2, 4, 9a and 10a. First, I discuss columns (1) to (4) of tables 13 and 14. Thereafter columns (5) to (7) of tables 13 and 14 are discussed.

Column (1) of table 13 presents *CARs* for the full sample of 2,436 media M&A transactions. Calculations indicate that media M&A yields positive and strongly significant *CARs*  $(-1,+1)$  of 1.52%. Over the full sample, I also find highly significant positive *CARs*  $(-1,+1)$  for all subsectors and both periods. Columns (2) and (3) of table 13 exhibit *CARs*  $(-1,+1)$  for domestic and cross-border media M&A, respectively 1.70% and 1.06% over the full sample. For all subsectors and in both periods, both domestic and cross-border media M&A yield positive and significant *CARs*  $(-1,+1)$ . The only exception is cross-border media M&A pursued by telecommunications firms. For the full sample and all subsectors there are no significant differences in *CARs*  $(-1,+1)$  received from domestic and cross-border media M&A. Nevertheless, in period 2 domestic media M&A does receive significantly 1.49% higher *CARs*  $(-1,+1)$  than cross-border M&A. Furthermore, no significant differences are found in *CARs*  $(-1,+1)$  from media M&A between different media subsectors ((a)-(b) and (c)-(d), (c)-(e) and (d)-(e)) or between period 1 and period 2. Table 28 in appendix 5 shows similar results for media M&A *CARs*  $(-1,+1)$  “short *EW*”. Table 14 presents *SCARs*, cumulative abnormal returns allowing for event-induced variance change. *SCARs*  $(-1,+1)$  present the same results in terms of significance as *CARs*  $(-1,+1)$ . However, *SCARs*  $(-1,+1)$  are slightly lower than *CARs*  $(-1,+1)$ , yet *SCARs*  $(-1,+1)$  are also all positive. This effect is presumably caused by the standardisation of abnormal returns. To illustrate, for the full sample of media M&A deals, *SCAR*  $(-1,+1)$  is 1.25% in comparison to 1.52% *CAR*  $(-1,+1)$ .

The bottom section of table 13 exhibits *CARs* for the eleven-day event window. *CARs*  $(-5,+5)$  for the full sample, subsectors and both time periods are all positive, also for both domestic and cross-border M&A. *CAR*  $(-5,+5)$  for the full sample of media M&A deals is 1.14% and strongly significant. Over the full sample, both domestic and cross-border M&A receive positive and significant *CARs*  $(-5,+5)$ , 1.20% and .98% respectively. However, the .22% difference is insignificant (column (4)). When examining subsectors and periods (column (1)), one can see that only traditional media firms and media firms announcing M&A in period 2 receive significant *CARs*  $(-5,+5)$ . Domestic media M&A receives significantly higher *CARs*  $(-5,+5)$  than cross-border M&A solely in period 2, similar to *CARs*  $(-1,+1)$ . For full sample and for domestic media M&A, *CARs*  $(-5,+5)$  received in period 2 are significantly higher than in period 1 ((a)-(b)). Table 28 in appendix 5 shows very similar results. *SCARs*  $(-5,+5)$  are also similar in terms of significance but again slightly lower than *CARs*  $(-5,+5)$ .

**Table 13: Univariate analysis: CAR media M&A**

Overview of the cumulative abnormal returns (CAR) calculated by the market model over the 250-trading day estimation window for the event window (-1, +1) and (-5, +5). Announcement is day 0. CARs received from cross-border/domestic and focusing/conglomerate M&A are calculated for the total sample, three industry subsectors and two sample periods. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level.

	Full Sample	Domestic	Cross-border	Difference		Focusing	Conglomerate	Difference	
	(1)	(2)	(3)	(4) = (2)-(3)	t-statistic	(5)	(6)	(7) = (5)-(6)	t-statistic
<i>CAR<sub>(-1,+1)</sub></i>									
Full sample	.0152*** N=2,436	.0170*** N=1,758	.0106*** N=678	.0064	1.32	.0108*** N=1,462	.0219*** N=974	-.0111*	-1.74
Period 1 1999-2008 (a)	.0125*** N=1,576	.0130*** N=1,155	.0111*** N=421	.0019	.30	.0063* N=997	.0232*** N=579	-.0169*	-1.92
Period 2 2009-2018 (b)	.0202*** N=860	.0246*** N=603	.0098** N=257	.0149**	2.01	.0204*** N=465	.0200*** N=395	.0004	.04
Traditional media (c)	.0110*** N=1,006	.0109*** N=742	.0115*** N=264	-.0006	-.09	.0068** N=565	.0166*** N=441	-.0098	-1.51
Telecommunication (d)	.0170*** N=731	.0201** N=518	.0093 N=213	.0108	.75	.0092 N=418	.0274** N=313	-.0182	-1.28
Digital media (e)	.0194*** N=699	.0229*** N=498	.0107* N=201	.0122	.95	.0169*** N=479	.0248* N=220	-.0079	-.54
(a) – (b)	-.0077	-.0116	.0014			-.0141**	.0032		
t-statistic	-1.33	-1.50	.23			-2.30	.29		
(c) – (d)	-.0059	-.0092	.0022			-.0024	-.0108		
t-statistic	-.82	-.95	.30			-.35	-.76		
(c) – (e)	-.0083	-.0120	.0008			-.0101	-.0082		
t-statistic	-1.27	-1.38	.11			-1.54	-.56		
(d) – (e)	-.0024	-.0027	-.0014			-.0077	.0026		
t-statistic	-.28	-.24	-.17			-.92	.14		
<i>CAR<sub>(-5,+5)</sub></i>									
Full sample	.0114*** N=2,436	.0120** N=1,758	.0098** N=678	.0022	.30	.0078 N=1,462	.0168** N=974	-.0090	-1.05
Period 1 1999-2008 (a)	.0037 N=1,576	.0012 N=1,155	.0104* N=421	-.0092	-.95	-.0017 N=997	.0129 N=579	-.0147	-.25
Period 2 2009-2018 (b)	.0256*** N=860	.0327*** N=603	.0089 N=257	.0237**	2.39	.0283*** N=465	.0224** N=395	.0058	.49
Traditional media (c)	.0126*** N=1,006	.0135*** N=742	.0102* N=264	.0033	.36	.0119** N=565	.0135* N=441	-.0016	-.19
Telecommunication (d)	.0127 N=731	.0148 N=518	.0076 N=213	.0072	.30	.0053 N=418	.0225 N=313	-.0171	-.81
Digital media (e)	.0084 N=699	.0070 N=498	.0118 N=201	-.0048	-.30	.0051 N=479	.0154 N=220	-.0102	-.60
(a) – (b)	-.0219***	-.0315***	.0014			-.0300***	.0095		
t-statistic	-2.68	-2.89	.17			2.79	.74		
(c) – (d)	-.0001	-.0013	.0026			.0066	-.0090		
t-statistic	-.01	-.08	.24			.40	-.56		
(c) – (e)	.0042	.0065	-.0016			.0068	-.0019		
t-statistic	.51	.59	-.15			.72	-.11		
(d) – (e)	.0043	.0078	-.0042			.0002	.0071		
t-statistic	.33	.44	-.33			.01	.34		

**Table 14: Univariate analysis: CSAR media M&A**

Overview of cumulative standardised abnormal returns (CSAR) calculated by the market model over a 250-trading day estimation window for event window (-1, +1) and (-5, +5). Announcement is day 0. CSARs received from cross-border/domestic and focusing/conglomerate M&A are calculated for the total sample, three industry subsectors and two sample periods. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CSAR calculation methodology is explained in section 4.4.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level.

	Full Sample	Domestic	Cross-border	Difference		Focusing	Conglomerate	Difference	
	(1)	(2)	(3)	(4) = (2)-(3)	t-statistic	(5)	(6)	(7) = (5)-(6)	t-statistic
<i>CSAR<sub>(-1,+1)</sub></i>									
Full sample	.0125*** N=2,436	.0143*** N=1,758	.0079*** N=678	.0064	1.51	.0084*** N=1,462	.0187*** N=974	-.0103*	-1.79
Period 1 1999-2008 (a)	.0105*** N=1,576	.0113*** N=1,155	.0082** N=421	.0031	.55	.0049* N=997	.0201*** N=579	-.0152*	-1.93
Period 2 2009-2018 (b)	.0162*** N=860	.0200*** N=603	.0074** N=257	.0126**	1.99	.0160*** N=465	.0166** N=395	-.0006	-.07
Traditional media (c)	.0085*** N=1,006	.0092*** N=742	.0066** N=264	.0026	.44	.0050** N=565	.0131** N=441	-.0081	-1.44
Telecommunication (d)	.0144** N=731	.0170** N=518	.0082 N=213	.0088	.67	.0072 N=418	.0241** N=313	-.0169	-1.31
Digital media (e)	.0162*** N=699	.0190*** N=498	.0093* N=201	.0097	.87	.0135*** N=479	.0221* N=220	-.0086	-.66
(a) – (b)	-.0058	-.0087	.0008			-.0111**	.0036		
t-statistic	-1.12	-1.25	.17			-2.11	.35		
(c) – (d)	-.0059	-.0078	-.0016			-.0022	-.0110		
t-statistic	-.91	-.89	-.26			-.37	-.86		
(c) – (e)	-.0077	-.0098	-.0027			-.0086	-.0090		
t-statistic	-1.35	-1.28	-.47			-1.57	-.68		
(d) – (e)	-.0018	-.0020	-.0011			-.0063	.0020		
t-statistic	-.23	-.19	-.15			-.86	.12		
<i>CSAR<sub>(-5,+5)</sub></i>									
Full sample	.0099** N=2,436	.0104** N=1,758	.0085** N=678	.0019	.30	.0056 N=1,462	.0163*** N=974	-.0106	-1.37
Period 1 1999-2008 (a)	.0032 N=1,576	.0010 N=1,155	.0092* N=421	-.0082	-.93	-.0024 N=997	.0129 N=579	-.0153	-1.43
Period 2 2009-2018 (b)	.0221*** N=860	.0284*** N=603	.0074* N=257	.0210**	2.48	.0229*** N=465	.0212*** N=395	.0017	.16
Traditional media (c)	.0108*** N=1,006	.0122*** N=742	.0067 N=264	.0055	.72	.0091** N=565	.0128** N=441	-.0037	-.52
Telecommunication (d)	.0116 N=731	.0130 N=518	.0084 N=213	.0046	.20	.0038 N=418	.0221* N=313	-.0183	-.92
Digital media (e)	.0065 N=699	.0051 N=498	.0111 N=201	-.0060	-.42	.0031 N=479	.0148 N=220	-.0117	-.76
(a) – (b)	-.0189**	-.0274***	.0018			-.0253***	-.0084		
t-statistic	-2.56	-2.75	.25			-2.60	-.73		
(c) – (d)	-.0009	-.0008	-.0017			.0053	-.0093		
t-statistic	-.08	-.05	-.19			.34	-.65		
(c) – (e)	.0040	.0071	-.0044			.0060	-.0020		
t-statistic	.54	.74	-.51			.76	-.13		
(d) – (e)	.0049	.0079	-.0027			.0007	.0073		
t-statistic	.40	.48	-.25			.04	.39		

Columns (5) to (7) of table 13 exhibit *CARs* received through focusing and conglomerate media M&A. M&A is labelled as conglomerate when the acquirer buys a target active in a different primary two-digit SIC code industry. M&A is labelled as focusing otherwise. According to table 13, focusing media M&A yields significant 1.08% *CARs* (-1,+1) and conglomerate media M&A yields significant 2.19% *CARs* (-1,+1). The 1.11% difference (column (7)) is statistically significant at a 10% level, same holds for the 1.69% difference between focusing and conglomerate media M&A in period 1. Furthermore, *CARs* (-1,+1) for both focusing and conglomerate media M&A in all subsectors and in both periods are significant. Except for focusing telecommunication firms. Focusing media M&A yields significantly 1.41% higher *CARs* (-1,+1) in period 2 than in period 1 ((a)-(b)). *CARs* (-1,+1) “short EW” for focusing and conglomerate media M&A (appendix 5), again show fairly similar results as *CARs* (-1,+1) (table 13). One notable difference: the difference in *CARs* (-1,+1) “short EW” received from focusing and conglomerate M&A is not statistically different over the full sample. This effect is driven by higher *CARs* (-1,+1) “short EW” from focusing media M&A, implying that calculated normal returns are lower and hence probably less impacted by estimation window disturbance. From table 14 one can conclude that *CSARs* (-1,+1) and *CARs* (-1,+1) for focusing and conglomerate M&A show similar results in terms of significance, however *CSARs* (-1,+1) are slightly lower than *CARs* (-1,+1). To illustrate, focusing media M&A yields 1.08% *CARs* (-1,+1) and .84% *CSARs* (-1,+1), conglomerate media M&A yields 2.19% *CAR* (-1,+1) and a 1.87% *CSARs* (-1,+1).

Lastly, I discuss *CARs* (-5,+5) from the bottom section of table 13 in columns (5) to (7). One can see that both, focusing and conglomerate M&A, yield positive *CARs* (-5,+5) over the full sample, all subsectors and periods. However, over the full sample solely *CARs* (-5,+5) from the conglomerate media M&A sample are significant. In the traditional media firm subsector and in period 2, both focusing, and conglomerate acquirers receive significant *CARs* (-5,+5). Focusing media M&A yields significantly higher *CARs* (-5,+5) in period 2 than in period 1 (column 5, (a) – (b)). Table 28 (appendix 5) shows that, over the full sample, both focusing and conglomerate acquirers receive significantly positive *CARs* (-5,+5) “short EW”. Comparing *CARs* (-5,+5) and *CSARs* (-5,+5) shows similar results for focusing and conglomerate M&A.

One can draw several conclusions from the results presented above by the univariate analysis of short-term wealth effects resulting from media M&A. Results of the univariate analysis on the full sample of 2,436 media M&A deals presented by tables 13, 14 and 28 (appendix 5) indicate that no matter by what approach abnormal returns are calculated and over what window they are cumulated, media M&A yield significantly positive wealth effects. Furthermore, although domestic and cross-border media M&A both yield positively significant *CARs*, the difference between the two M&A strategies is solely significant in period 2. This indicates that media firms that announced domestic M&A between 2009 and 2018 received significantly higher *CARs* than media firms that announced cross-border M&A in

that period. Implying that in the recent ten-years domestic media M&A was perceived as more lucrative than cross-border media M&A. Regarding focusing and conglomerate media M&A, tables 13,14 and 28 exhibit that both strategies yield positive *CARs*. When calculating *CAR* over a three-day event window, I find that conglomerate media M&A yields higher *CARs* than focusing media M&A over the full sample at a 10% significance level. However, this finding is not robust for *CARs* “*short EW*”. When cumulating abnormal returns over an eleven-day event window, one can conclude that media M&A announced in period 2 yields higher *CARs* than media M&A announced in period 1. The former result is found over the full sample, domestic M&A and focusing media M&A. For *CARs*  $(-1,+1)$  this significant difference between periods is only found for focusing media M&A. Last, no significant differences are found among *CARs* received by media firms from the traditional media, telecommunications or digital media subsector.

### **5.1.2 Short-term wealth effects sell-offs**

In this subsection I discuss the results found through the univariate analysis of wealth effects arising from media sell-off transactions. Same as for media M&A transactions, I analyse wealth effects by calculating and testing *CARs* calculated based on a twelve-month estimation window (table 15) and based on a six-month estimation window (table 27, appendix 5). Additionally, I calculate *CSARs* (cumulative standardised abnormal returns) – abnormal returns allowing for event-induced variance – and test these *CSARs* by applying the Boehmer et al. (1990) T-test (table 16). The univariate analysis examines differences in abnormal returns received from non-focusing and focusing media sell-offs. Furthermore, the univariate analysis of media sell-off transactions examines whether abnormal returns differ among subsectors (traditional media firms, telecommunication firms and digital media firms) and for period 1 (1999 – 2008) and period 2 (2009 – 2018).

First, the upper part of table 15 exhibits results of the univariate analysis of *CARs*  $(-1,+1)$  for the full sample of 1,266 media sell-offs, non-focusing media sell-offs and focusing media sell-offs. Columns (1) to (3) show that in all subsectors and for both periods, media sell-offs yield positive *CARs*  $(-1,+1)$ , however not all are significant. For the full sample of media sell-offs a *CAR*  $(-1,+1)$  of 5.09% is calculated which is significant at a 10% level. Furthermore, media sell-offs by telecommunications and digital media firms and media sell-offs announced in period 2 yield significant *CARs*  $(-1,+1)$  (column (1)). Interestingly, over nearly all subsamples, non-focusing sell-offs yield insignificantly higher *CARs*  $(-1,+1)$  than focusing media sell-offs (column (4)). However, focusing media sell-offs yield significant announcement returns over the full sample (1.83%) and all subsamples (except digital media firms). Non-focusing media sell-offs solely receive significant positive *CARs*  $(-1,+1)$  when announced in period 2 or when pursued by a telecommunication firm. Table 27 in appendix 5 examines *CARs*  $(-1,+1)$  “*short EW*”. The findings in table 27 are consistent with the findings presented in table 15. From table 16, presenting *CSARs* and their statistical significance, one can draw the same conclusions as from table 15. However, due to the standardisation, *CSARs* are slightly lower than *CARs*. To illustrate, *CAR*  $(-$

$1,+1$ ) for the full sample of media sell-offs is 5.09% while  $CSAR (-1,+1)$  for the full sample of media sell-offs is 4.72%.

The results of the  $CAR (-5,+5)$  calculations (exhibited in the bottom of table 15) are very similar to the results of the  $CAR (-1,+1)$  calculations. For the full sample  $CAR (-5,+5)$  is significantly positive, 5.26%. Over all subsamples, excluding digital media, non-focusing media sell-offs yield insignificantly higher  $CARs (-5,+5)$  than focusing media sell-offs (column (4)). However, as opposed to non-focusing sell-offs, focusing sell-offs yield significant  $CARs (-5,+5)$  of 1.65% over the full sample. Furthermore, media sell-offs announced in period 2, for the full media sell-off sample, as well as for non-focusing and focusing media sell-offs, yield significant positive  $CARs (-5,+5)$ . Table 27 in appendix 5 examines  $CARs (-5,+5)$  “short EW”. The findings in table 27 for  $CARs (-5,+5)$  “short EW” are in line with the findings presented in table 15. Same holds for the  $CSAR (-5,+5)$  calculations exhibited in table 16.  $CSAR (-5,+5)$  calculations are slightly lower than the  $CAR (-5,+5)$  calculations. Yet, in terms of significance, the  $CSAR (-5,+5)$  calculations in table 16 strongly correspond to the  $CAR (-5,+5)$  calculations in table 15.

In conclusion, firms in the full sample of media sell-off transactions receive significantly positive abnormal returns based on all results ( $CAR (-1,+1)$ ,  $CSAR (-1,+1)$ ,  $CAR (-1,+1)$  “short EW”,  $CAR (-5,+5)$ ,  $CSAR (-5,+5)$  and  $CAR (-5,+5)$  “short EW”). Focusing media sell-off transactions do receive highly significant positive  $CARs$  over the full sample and non-focusing media sell-offs do not. The (insignificant)  $CARs$  calculated for non-focusing media sell-offs are higher than the  $CARs$  received from focusing media sell-offs, but the difference is insignificant. Media sell-offs announced in period 2 (2009 – 2018) yield positive and highly significant  $CARs$  over the full sample of media sell-offs, non-focusing media sell-offs and focusing media sell-offs. No supporting evidence is found indicating significant differences between  $CARs$  received in period 1 and period 2. Last, same as for media M&A, no significant differences are found among  $CARs$  received by media firms from the traditional media, telecommunications or digital media subsector.

**Table 15: Univariate analysis: CAR media sell-offs**

Overview of the cumulative abnormal returns (CAR) for the three-day event window and (-1, +1) and eleven-day event window (-5, +5), announcement is day 0. CARs received from non-focusing/focusing sell-offs are calculated for the total sample, three industry subsectors and two sample periods. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level.

	Full Sample	Non-focusing	Focusing	Difference	
	(1)	(2)	(3)	(4) = (2)-(3)	t-statistic
<i>CAR<sub>(-1,+1)</sub></i>					
Full sample	.0509*	.0751	.0183***	.0568	1.11
	N=1,266	N=726	N=540		
Period 1 (a)	.0611	.0952	.0144***	.0808	1.06
1999-2008	N=835	N=482	N=353		
Period 2 (b)	.0311***	.0352***	.0257**	.0095	.59
2009-2018	N=431	N=244	N=187		
Trad. media (c)	.0842	.1380	.0147***	.1233	1.00
	N=598	N=337	N=261		
Telecom. (d)	.0136***	.0160***	.0108*	.0052	.59
	N=526	N=288	N=238		
Digital media (e)	.0486**	.0336	.0853	-.0517	-1.04
	N=142	N=101	N=41		
(a) – (b)	.0300	.0600	.0113		
t-statistic	.67	.78	.88		
(c) – (d)	.0705	.1220	.0039		
t-statistic	1.15	1.12	.50		
(c) – (e)	.0356	.1044	-.0706		
t-statistic	.55	.94	-1.37		
(d) – (e)	-.0349	-.0176	-.0746		
t-statistic	-1.52	-.72	-1.44		
<i>CAR<sub>(-5,+5)</sub></i>					
Full sample	.0526*	.0795	.0165**	.0630	1.24
	N=1,266	N=726	N=540		
Period 1 (a)	.0618	.0995	.0102	.0893	1.17
1999-2008	N=835	N=482	N=353		
Period 2 (b)	.0348***	.0398***	.0282**	.0116	.69
2009-2018	N=431	N=244	N=187		
Trad. media (c)	.0896	.1494	.0121*	.1371	1.12
	N=598	N=337	N=261		
Telecom. (d)	.0158**	.0172*	.0142	.0030	.22
	N=526	N=288	N=238		
Digital media (e)	.0330	.0236	.0561	-.0325	-.62
	N=142	N=101	N=41		
(a) – (b)	.0270	.0600	-.0180		
t-statistic	.61	.78	-1.28		
(c) – (d)	.0738	.1323	-.0019		
t-statistic	1.20	1.22	-.16		
(c) – (e)	.0566	.1258	-.0438		
t-statistic	.87	1.14	-.84		
(d) – (e)	-.0172	-.0064	-.0419		
t-statistic	-.70	-.23	-.79		

**Table 16: Univariate analysis: CSAR media sell-offs**

Overview of the standardised cumulative abnormal returns (CSAR) for the three-day event window and (-1, +1) and eleven-day event window (-5, +5), announcement is day 0. CSARs received from non-focusing/focusing sell-offs are calculated for the total sample, three industry subsectors and two sample periods. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CSAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level.

	Full Sample	Non-focusing	Focusing	Difference	
	(1)	(2)	(3)	(4) = (2)-(3)	t-statistic
<i>SCAR</i> <sub>(-1,+1)</sub>					
Full sample	.0472* N=1,266	.0709 N=726	.0153*** N=540	.0556	1.12
Period 1 (a) 1999-2008	.0560 N=835	.0918 N=482	.0118** N=353	.0801	1.07
Period 2 (b) 2009-2018	.0262*** N=431	.0294*** N=244	.0122** N=187	.0075	.49
Trad. media (c)	.0791 N=598	.1313 N=337	.0119*** N=261	.1194	.99
Telecom. (d)	.0114*** N=526	.0143*** N=288	.0078 N=238	.0065	.86
Dig. media (e)	.0451** N=142	.0306 N=101	.0808 N=41	-.0502	-1.05
(a) – (b)	.0318	.0624	-.0102		
t-statistic	.73	.83	-.86		
(c) – (d)	.0678	.1169	.0041		
t-statistic	1.13	1.10	.63		
(c) – (e)	.0341	.1007	-.0689		
t-statistic	.53	.93	-1.38		
(d) – (e)	-.0337	-.0163	-.0730		
t-statistic	-1.53	-.70	-1.46		
<i>SCAR</i> <sub>(-5,+5)</sub>					
Full sample	.0498* N=1,266	.0763 N=726	.0142** N=540	.0621	1.25
Period 1 (a) 1999-2008	.0603 N=835	.0983 N=482	.0084 N=353	.0898	1.21
Period 2 (b) 2009-2018	.0294*** N=431	.0328*** N=244	.0251** N=187	.0077	.50
Trad. media (c)	.0864 N=598	.1443 N=337	.0116** N=261	.1327	1.11
Telecom. (d)	.0131** N=526	.0158* N=288	.0098 N=238	.0060	0.51
Dig. media (e)	.0318 N=142	.0217 N=101	.0565 N=41	-.0348	-.71
(a) – (b)	.0309	.0655	.0166		
t-statistic	.71	.88	1.35		
(c) – (d)	.0733	.1284	.0018		
t-statistic	1.23	1.21	.19		
(c) – (e)	.0546	.1225	-.0449		
t-statistic	.86	1.13	-.92		
(d) – (e)	-.0187	-.0059	-.0467		
t-statistic	-.82	-.23	-.94		

## 5.2 Multivariate analysis

### 5.2.1 Drivers of cumulative abnormal returns in media M&A

The multivariate analysis consists of both linear and non-linear regression analyses. These analyses are meant to determine the driving forces behind the CARs that are calculated and statistically tested in the univariate analysis. Table 17 presents the estimates of the linear regression analyses for media firm M&A transactions. *CAR* (-1,+1) is the dependent variable in these regressions, calculated by market model methodology based on a 250-trading day estimation window. The regression models in column (4) to (6) are meant to test differential effects of explanatory variables in cross-border or conglomerate M&A strategies. Therefore, the explanatory variables interact with dummy variables representing these

M&A strategies. The explanatory variables included in the media M&A regression model representing “target country digitisation” are: *internet usage*, *cellular subscriptions*, *broadband subscriptions*. *Growth (Tobin’s q)*, *SIC code overlap %* and *high-tech target* represent the acquiring media firms’ “operational synergy potential”.

Columns (1) and (4) show the estimated coefficients of the linear regression models excluding control variables and fixed effects. Columns (2) and (5) show the estimated coefficients of the linear regression models including control variables and excluding fixed effects. Columns (3) and (6) present full linear regression models including both control variables and fixed effects. The results in columns (1), (2), (4) and (5) of table 17 show that the explanatory variables *internet usage*, *cellular subscriptions*, *broadband subscriptions*, *growth (Tobin’s q)* and *SIC code overlap %* significantly impact *CAR (-1,+1)*. Nevertheless, after including fixed effects in the regression models, solely the estimated coefficient for *broadband subscriptions* remains significant at a 10% level. Hence, *broadband subscriptions* positively influences *CAR (-1,+1)* by .1 percentage point (“pp” hereafter). The disappearance of significant coefficients for *internet usage*, *cellular subscriptions* and *growth (Tobin’s q)* when including fixed effects might imply an omitted variable bias. The coefficient estimated for *growth (Tobin’s q)*, indicating a negative impact on *CARs (-1,+1)* by .3 to .4 pp, is unexpected. Same holds for *internet usage* and *cellular subscriptions*. These explanatory variables were expected to positively impact *CARs (-1,+1)*. Conglomerate M&A strategies appear to positively impact *CARs (-1,+1)* received in media M&A by 1.4 to 2.7 pp more than domestic M&A strategies, as indicated by columns (1), (2), (4) and (5). This finding is in line with findings presented by column (7) of table 15 in the univariate analysis section. However, the significant effect again disappears when adding fixed effects to the regression model. The regression models including fixed effects – presented in columns (3) and (6) – indicate that traditional media firms receive significantly higher (17.1 to 16.4 pp) *CARs (-1,+1)* than telecommunication media firm (omitted dummy variable in the regression). No significant coefficients are estimated for the effect of explanatory variable *high-tech target* on *CAR(-1,+1)*.

A notable finding presented by table 17 is that no significant differential effect is found in all regression models (columns (3) to (6)). This suggests that the explanatory variables *internet usage*, *cellular subscriptions* and *broadband subscriptions* do not affect *CARs (-1,+1)* in cross-border media M&A stronger than in domestic media M&A. Additionally, *growth (Tobin’s q)*, *SIC code overlap %* and *high-tech target* do not affect *CARs (-1,+1)* received in conglomerate media M&A stronger than in focusing media M&A.

**Table 17: Multivariate analysis: linear regression models media M&A**

Dependent variable is CAR calculated over a three-day even window (-1, +1). Columns (1), (2) and (3) include basic linear regressions and columns (4), (5) and (6) include regressions with interacted explanatory variables. “Internet usage”, “cellular subscriptions” and “broadband subscriptions” measure “target country digitisation”. “Growth (Tobin’s q)”, “SIC code overlap %” and “high-tech target” measure “operational synergy potential”. Cross-border M&A, conglomerate M&A, period 1, traditional media firm and digital media firm are dummy variables. Explanatory variables are described in section 4.2.2. Control variables are described in appendix 3. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level. Constant is included in the regression models.

	$CAR_{(-1,+1)}$					
	Linear			Linear differential		
	(1)	(2)	(3)	(4)	(5)	(6)
Internet usage	-.000 (.000)	-.001** (.000)	-.001 (.000)	-.000 (.000)	-.001 (.001)	-.001 (.001)
Cellular subscriptions	-.000 (.000)	-.000** (.000)	-.000 (.000)	-.000 (.000)	-.000 (.000)	-.000 (.000)
Broadband subscriptions	.001 (.001)	.001* (.001)	.001* (.001)	.001 (.001)	.001 (.001)	.002 (.001)
Growth (Tobin's q)	-.004*** (.001)	-.003** (.001)	.000 (.003)	-.003* (.002)	-.001 (.001)	.000 (.003)
SIC code overlap %	.012 (.010)	.004 (.011)	.017 (.013)	.017** (.009)	.005 (.009)	.018 (.016)
High-tech target	.001 (.007)	.006 (.008)	.003 (.009)	-.004 (.007)	.004 (.009)	.002 (.013)
Cross-border M&A	-.008 (.005)	-.001 (.005)	-.001 (.008)	.017 (.040)	.003 (.039)	-.010 (.043)
Conglomerate M&A	.018** (.008)	.014* (.007)	.005 (.008)	.027*** (.011)	.020* (.010)	.006 (.011)
Period 1 (1999 – 2008)	-.005 (.009)	-.008 (.008)	.038 (.035)	-.005 (.009)	-.007 (.009)	.040 (.035)
Traditional media firm	-.004 (.008)	-.006 (.008)	.171*** (.051)	-.005 (.011)	-.006 (.010)	.164*** (.052)
Digital media firm	.011 (.009)	.002 (.008)	.028 (.020)	.012 (.009)	.001 (.008)	.030 (.022)
Cross-border M&A*Internet usage				-.000 (.001)	-.000 (.001)	.000 (.001)
Cross-border M&A*Cellular subscriptions				-.000 (.000)	.000 (.000)	.000 (.000)
Cross-border M&A*Broadband subscriptions				.000 (.001)	-.001 (.001)	-.001 (.001)
Conglomerate M&A*Growth (Tobin's q)				-.003 (.002)	-.003 (.002)	-.001 (.002)
Conglomerate M&A*SIC code overlap %				-.007 (.033)	-.001 (.032)	-.002 (.037)
Conglomerate M&A*High-tech target				-.006 (.014)	.002 (.016)	.001 (.014)
Covariates	No	Yes	Yes	No	Yes	Yes
Firm fixed effects	No	No	Yes	No	No	Yes
Year fixed effects	No	No	Yes	No	No	Yes
R <sup>2</sup>	.009	.053	.776	.011	.054	.776
Observations	2235	2235	2235	2235	2235	2235

Table 29 included in appendix 6 exhibits estimates of the same regression models conducted with dependent variable being  $CAR (-1,+1)$  calculated over a six-month estimation window (“short EW” hereafter). Table 29 shows broadly the same results as table 17. However, the full regression models presented in columns (3) and (6) show some additional significant estimates. While in table 17 the significant negative effect of *internet usage* disappears when including fixed effects, this effect remains in table 29 when including fixed effects to the regression model. Another notable difference found in table 29, column (3), is the positive significant 3.5 pp effect of the dummy variable *digital media* in the

full regression model. The slight differences in results might indicate less disturbance in the six-month estimation window and as a result a more reliable normal return model and stronger pronounced *CARs*  $(-1,+1)$  “short *EW*”.

Table 18 exhibits coefficients estimated by non-linear regression models designed to determine the effect of explanatory variables divided in quartiles on *CAR*  $(-1,+1)$ . Dividing explanatory variables in quartiles allows for examining solely the impact of a certain quartile of an explanatory variable in comparison to the first quartile of that variable. The first quartile is always the baseline in the regression models presented by table 18. Columns (1) to (3) present basic non-linear regression models including quartiles of each explanatory variable, except for the explanatory variable *high-tech target*, which is a dummy variable. Columns (4) to (6) present regression models including quartiles of explanatory variables interacting with dummy variables representing cross-border or conglomerate M&A strategies. This allows for examining differential effects of quartiles of an explanatory variable for a specific M&A strategy.

The estimates of the non-linear regression models are consistent with the estimates found through the linear regression models. First, columns (1), (2) and (4) indicate that firms falling in the highest quartile (and in Q3 for column (1)) in terms of growth options (*Tobin's q*) negatively impact *CAR*  $(-1,+1)$  by 1.6 to 3.2 pp more than firms that fall in Q1. Interestingly, a significant differential effect is found for the explanatory variable *growth* (*Tobin's q*) in conglomerate M&A. Interaction of *growth* (*Tobin's q*) Q3 with a dummy variable representing conglomerate M&A gives a significant negative coefficient of 3.7 to 3.9 pp. This can be interpreted as follows: firms falling in the third quartile in terms of growth options receive 3.7 to 3.9 pp lower *CARs*  $(-1,+1)$  than firms falling in the first quartile, when pursuing conglomerate M&A instead of focusing M&A. This differential effect disappears when including fixed effects. So, if one controls for firm specific characteristics that do not vary over time and for year specific events growth options do not significantly impact *CAR*  $(-1,+1)$ . Regarding firm types, I find the same results as in the linear regression analyses: regression models including fixed effects – presented in columns (3) and (6) – indicate that traditional media firms receive significantly higher (16.7 to 17.1 pp) *CARs*  $(-1,+1)$  than telecommunication media firm (omitted dummy variable in the regression).

Furthermore, columns (2) and (4) show some significant estimates for *internet usage Q2*, *SIC code overlap % Q4* and *cellular subscription Q2\*cross-border M&A*. While these estimates are significant at a 10% level in table 18, they become insignificant when substituting *CAR*  $(-1,+1)$  for *CAR*  $(-1,+1)$  “short *EW*” in table 30. Therefore, these estimates are not perceived as robust.

**Table 18: Multivariate analysis: non-linear regression models media M&A**

Dependent variable is CAR calculated over a three-day even window (-1, +1). Columns (1), (2) and (3) include basic non-linear regressions and columns (4), (5) and (6) include non-linear regressions with interacted explanatory variables. All explanatory variables are divided into quartiles, excluding high-tech target. “Internet usage”, “cellular subscriptions” and “broadband subscriptions” measure “target country digitisation”. “Growth (Tobin’s q)”, “SIC code overlap %” and “high-tech target” measure “operational synergy potential”. Cross-border M&A, conglomerate M&A, period 1, traditional media firm and digital media firm are dummy variables. Explanatory variables are described in section 4.2.2. Control variables are described in appendix 3. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level. Constant is included in the regression models.

	$CAR_{(-1,+1)}$					
	Non-linear			Non-linear differential		
	(1)	(2)	(3)	(4)	(5)	(6)
Internet usage Q2	-.012 (.011)	-.018* (.011)	-.017 (.012)	-.009 (.016)	-.017 (.017)	-.026 (.019)
Internet usage Q3	-.008 (.013)	-.012 (.013)	-.017 (.017)	-.002 (.019)	-.005 (.020)	-.019 (.025)
Internet usage Q4	.001 (.015)	-.009 (.015)	-.027 (.019)	.014 (.023)	.000 (.024)	-.029 (.027)
Cellular subscriptions Q2	-.003 (.010)	-.003 (.010)	-.004 (.013)	.004 (.012)	.001 (.012)	-.005 (.016)
Cellular subscriptions Q3	-.009 (.012)	-.014 (.012)	-.011 (.019)	-.001 (.015)	-.012 (.015)	-.013 (.026)
Cellular subscriptions Q4	-.006 (.013)	-.013 (.013)	-.011 (.019)	-.002 (.019)	-.015 (.019)	-.016 (.029)
Broadband subscriptions Q2	-.006 (.009)	-.004 (.010)	.012 (.017)	-.010 (.013)	-.005 (.014)	.016 (.024)
Broadband subscriptions Q3	-.000 (.015)	.000 (.015)	.024 (.021)	-.008 (.020)	-.002 (.020)	.032 (.029)
Broadband subscriptions Q4	-.002 (.023)	.001 (.022)	.034 (.025)	-.013 (.032)	-.002 (.032)	.041 (.034)
Growth (Tobin’s q) Q2	-.011 (.011)	.000 (.011)	.002 (.009)	-.003 (.009)	.009 (.012)	.008 (.014)
Growth (Tobin’s q) Q3	-.016** (.008)	-.002 (.007)	.010 (.012)	-.000 (.009)	.013 (.011)	.022 (.015)
Growth (Tobin’s q) Q4	-.032*** (.010)	-.016** (.008)	-.004 (.019)	-.022** (.011)	-.010 (.012)	-.002 (.022)
SIC code overlap % Q2	-.002 (.009)	.007 (.009)	.013 (.009)	.015 (.012)	.013 (.013)	.022 (.016)
SIC code overlap % Q3	.001 (.011)	-.001 (.012)	.014 (.010)	.016 (.012)	.006 (.014)	.022 (.018)
SIC code overlap % Q4	.006 (.011)	.005 (.011)	.016 (.012)	.021* (.012)	.008 (.013)	.017 (.018)
High-tech target	.000 (.007)	.006 (.008)	.003 (.009)	-.004 (.010)	.007 (.011)	.003 (.015)
Cross-border M&A	-.007 (.006)	.000 (.005)	.000 (.007)	.018 (.021)	.013 (.028)	.008 (.030)
Conglomerate M&A	.015** (.007)	.014* (.007)	.005 (.009)	.045** (.018)	.040** (.018)	.021 (.018)
Period 1 (1999 – 2008)	-.004 (.011)	-.010 (.011)	.039 (.041)	-.005 (.012)	-.009 (.012)	.039 (.042)
Traditional media firm	-.005 (.009)	-.007 (.008)	.171*** (.050)	-.007 (.011)	-.007 (.010)	.167*** (.052)
Digital media firm	.011 (.009)	.001 (.009)	.018 (.020)	.013 (.009)	.003 (.009)	.012 (.022)
Internet usage Q2*Cross-border M&A				-.008 (.019)	-.003 (.020)	.024 (.026)
Internet usage Q3*Cross-border M&A				-.014 (.023)	-.018 (.023)	.006 (.031)
Internet usage Q4*Cross-border M&A				-.034 (.025)	-.022 (.027)	.008 (.033)
Cellular sub Q2*Cross-border M&A				-.031* (.018)	-.025 (.018)	-.001 (.023)
Cellular sub Q3*Cross-border M&A				-.026 (.021)	-.009 (.021)	.005 (.032)
Cellular sub Q4*Cross-border M&A				-.018 (.025)	.001 (.024)	.011 (.034)

<i>Continued</i>						
Broadband sub Q2*Cross-border M&A				.006	-.003	-.014
				(.018)	(.018)	(.025)
Broadband sub Q3*Cross-border M&A				.014	-.005	-.021
				(.025)	(.025)	(.035)
Broadband sub Q4*Cross-border M&A				.020	-.002	-.017
				(.030)	(.031)	(.040)
Growth (Tobin's q) Q2*Conglomerate M&A				-.014	-.017	-.011
				(.025)	(.024)	(.018)
Growth (Tobin's q) Q3*Conglomerate M&A				-.037**	-.039**	-.019
				(.017)	(.017)	(.020)
Growth (Tobin's q) Q4*Conglomerate M&A				-.019	-.021	-.006
				(.018)	(.018)	(.019)
SIC code overlap % Q2*Conglomerate M&A				-.022	-.011	-.008
				(.018)	(.017)	(.017)
SIC code overlap % Q3*Conglomerate M&A				-.020	-.011	.000
				(.025)	(.025)	(.035)
SIC code overlap % Q4*Conglomerate M&A				-.027	-.018	-.026
				(.034)	(.032)	(.035)
High-tech target*Conglomerate M&A				-.007	.004	-.000
				(.017)	(.017)	(.014)
Covariates	No	Yes	Yes	No	Yes	Yes
Firm fixed effects	No	No	Yes	No	No	Yes
Year fixed effects	No	No	Yes	No	No	Yes
R <sup>2</sup>	.010	.053	.777	.016	.059	.778
Observations	2235	2235	2235	2235	2235	2235

In summary the findings presented by tables 17 and 18: (1) The explanatory variables representing target country digitisation have a significant effect on  $CAR(-I,+I)$  in media M&A in the linear regression models excluding fixed effects, however in the full model only *broadband subscriptions* positively influences  $CAR(-I,+I)$  by .1 pp. This finding is significant at 10% level. (2) The only explanatory variable representing operational synergy potential that has a pronounced significant effect on  $CAR(-I,+I)$  is *growth (Tobin's q)*. In the linear regression model *growth (Tobin's q)* negatively influences  $CAR(-I,+I)$  by .3 to .4 pp. Considering the non-linear regression models, one can conclude that this effect is strongly driven by media firms that fall into Q3 and Q4 in terms of growth options. Nevertheless, this effect is not robust in the full model. (3) The differential effect found for conglomerate M&A is found through the non-linear regression model for media firms that fall in Q3 in terms of growth options (*growth (Tobin's q)*). These firms receive significantly 3.7 to 3.9 pp lower  $CARs(-I,+I)$  than firms that fall in the first quartile in terms of growth options in focusing M&A. This effect is again not found to be robust in the full model. (4) Media M&A pursued by traditional media firms positively impacts  $CARs(-I,+I)$  by 16.4 to 17.1 pp in comparison to media M&A pursued by telecommunication firms. This finding is robust. (5) Conglomerate M&A strategies positively and significantly influence  $CAR(-I,+I)$  by 1.4 pp to 4.5 pp when excluding fixed-effects from the model.

### **5.2.2 Drivers of cumulative abnormal returns in media sell-offs**

Table 19 presents the findings of the linear regression models of short-term wealth effects ( $CARs$ ) of 1,266 media firm sell-off transactions.  $CAR(-I,+I)$  is the dependent variable in these regressions, calculated by market model methodology based on a 250-trading day estimation window. The regression models in columns (4) to (6) are meant to test differential effect of the explanatory variables

for a focusing sell-off strategy in comparison to a non-focusing sell-off strategy. Therefore, the explanatory variables interact with a dummy variable representing a focusing sell-off strategy. The explanatory variables in the media sell-off regression models representing operational synergy potential are *interest coverage ratio*, *growth (Tobin's q)* and *parent diversification*.

**Table 19: Multivariate analysis: linear regression models media sell-offs**

Dependent variable is CAR calculated over a three-day even window (-1, +1). Columns (1), (2) and (3) include basic linear regressions and columns (4), (5) and (6) include regressions with interacted explanatory variables. "Interest coverage ratio", "Growth (Tobin's q)" and "diversified parent" measure "operational synergy potential" and are expected to drive CARs in focusing sell-offs. Diversified parent, focusing sell-off, period 1, traditional media firm and digital media firm are all dummy variables. Explanatory variables are described in section 4.2.2. Control variables are explained in appendix 3. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level. Constant is included in regression model.

	$CAR_{(-1,+1)}$					
	Linear			Linear differential		
	(1)	(2)	(3)	(4)	(5)	(6)
Interest coverage ratio	-.011 (.010)	-.010 (.010)	.000 (.001)	-.017 (.016)	-.014 (.015)	-.000 (.001)
Growth (Tobin's q)	.020 (.020)	.018 (.014)	.016 (.012)	.012 (.027)	.008 (.023)	.019 (.017)
Diversified parent	.045 (.104)	.099 (.137)	-.392*** (.077)	.073 (.130)	.113 (.151)	-.374*** (.086)
Focusing sell-off	-.044 (.041)	-.016 (.021)	-.003 (.007)	.007 (.106)	-.032 (.108)	.018 (.035)
Period 1 (1999 – 2008)	.011 (.037)	.028 (.048)	-.026 (.031)	.004 (.031)	.022 (.043)	-.028 (.032)
Traditional media firm	.094 (.085)	.085 (.087)	.004 (.014)	.089 (.079)	.082 (.084)	.004 (.015)
Digital media firm	-.037 (.058)	-.056 (.058)	.031 (.029)	-.065 (.086)	-.076 (.075)	.030 (.029)
Interest coverage ratio*Focusing sell-off				.014 (.015)	.012 (.013)	.001 (.001)
Growth (Tobin's q)*Focusing sell-off				.013 (.023)	.018 (.024)	-.003 (.009)
Diversified parent*Focusing sell-off				-.123 (.149)	-.053 (.116)	-.022 (.034)
Covariates	No	Yes	Yes	No	Yes	Yes
Firm fixed effects	No	No	Yes	No	No	Yes
Year fixed effects	No	No	Yes	No	No	Yes
R <sup>2</sup>	.011	.035	.991	.015	.038	.991
Observations	1266	1266	1266	1266	1266	1266

From the results presented by table 19 in columns (3) and (6) one can conclude that parent diversification negatively impacts  $CAR (-1, +1)$  by 37.4 to 39.2 percentage points. This finding is solely found when including both control variables and fixed effects in the regression model. At first, a continuous variable representing the number of four-digit industry SIC codes the parent firm is active in was included in the models. It turned out that a parent firms' diversification level of more than one four-digit SIC code industry already significantly negatively impacted  $CAR (-1, +1)$ . After examining different degrees of parent firm diversification there seemed to be no significant difference in impact on  $CAR (-1, +1)$  between weakly and strongly diversified parent firms. The most pronounced effect was measured between undiversified firms and firms active in two four-digit SIC codes industries. Therefore, I substituted the continuous variable for a dummy variable equalling 1 when the parent firm is active in more than one four-digit SIC code industry and 0 in case the parent firm is active in one

four-digit SIC code industry. The estimate that parent diversification negatively influences  $CAR (-I, +I)$  is unexpected. The estimates in table 19 suggest that divesting parents' financial constraints in terms of its *interest coverage ratio* have no significant impact on  $CAR (-I, +I)$ . Same holds for parent firms' growth options expressed as *growth (Tobin's q)*. According to the estimates there is also no differential effect of the explanatory variables *interest coverage ratio*, *growth (Tobin's q)* and *parent diversification* in non-focusing and focusing media sell-off transactions.

The regression models exhibited in table 20 examine whether there is a non-linear effect of parent firms' financial constraints or growth options by creating variables representing quartiles of the explanatory variables *interest coverage ratio* and *growth (Tobin's q)*. The results from these regression models show no significant differences in the effect of media sell-offs on  $CAR (-I, +I)$  by firms that fall into quartile Q2, Q3 or Q4 relative to media sell-offs by companies that fall in Q1 in terms of *interest coverage ratio* or *growth (Tobin's q)*. Furthermore, the results presented by both tables 19 and 20 imply that media subsector – traditional media, telecommunications or digital media – does not make a significant difference for  $CARs (-I, +I)$ . Neither does the ten-year period in which the sell-off transaction is announced significantly matter for  $CARs (-I, +I)$ .

Tables 31 and 32 included in appendix 6 present the same linear and non-linear regression models as tables 19 and 20. The dependent variable included in the regression models presented by tables 31 and 32 is  $CAR (-I, +I)$  "short EW" instead of  $CAR (-I, +I)$ . However, no notable differences are found when comparing estimated coefficients of the regression models. This indicates robustness of results presented in tables 19 and 20.

One can conclude from tables 19 and 20 that the most pronounced finding through the multivariate analysis of  $CARs (-I, +I)$  received when announcing a media sell-off is that diversified media firms receive 30.7 to 39.2 pp lower  $CARs (-I, +I)$  than media firms active in only one four-digit SIC code industry. Both tables 19 and 20 imply that parent media firm financial constraints as well as growth options do not impact  $CAR (-I, +I)$ . Additionally, no significant estimates are found indicating a differential impact of media firms' financial constraints, growth options or diversification on  $CAR (-I, +I)$  in a focusing sell-off transaction. Last, the media subsector in which the parent media firm is active and the ten-year sample period in which the media sell-off transaction is announced appear to have no significant impact on  $CAR (-I, +I)$  according to the former analyses.

**Table 20: Multivariate analysis: non-linear regression models media sell-offs**

Dependent variable is CAR calculated over a three-day even window (-1, +1). Columns (1), (2) and (3) include basic non-linear regressions and columns (4), (5) and (6) include non-linear regressions with interacted explanatory variables. All explanatory variables are divided into four quartiles, excluding diversified parent. “Interest coverage ratio”, “Growth (Tobin’s q)” and “diversified parent” measure “operational synergy potential” and are expected to drive CARs in focusing sell-offs. Focusing sell-off, period 1, traditional media firm and digital media firm are all dummy variables. Explanatory variables are described in section 4.2.2. Control variables are explained in appendix 3. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level. Constant is included in regression model.

	$CAR_{(-1,+1)}$					
	Non-Linear			Non-linear differential		
	(1)	(2)	(3)	(4)	(5)	(6)
Interest coverage ratio Q2	-0.159 (.135)	-0.037 (.056)	.018 (.019)	-0.233 (.202)	-0.113 (.122)	-0.002 (.021)
Interest coverage ratio Q3	-0.147 (.111)	.008 (.026)	.036 (.026)	-0.220 (.181)	-0.061 (.078)	.021 (.028)
Interest coverage ratio Q4	-0.140 (.101)	.031 (.032)	.037 (.029)	-0.199 (.157)	-0.014 (.046)	.017 (.029)
Growth (Tobin’s q) Q2	-0.094 (.095)	-0.095 (.095)	.002 (.018)	-0.169 (.181)	-0.167 (.178)	.012 (.019)
Growth (Tobin’s q) Q3	-0.117 (.102)	-0.101 (.092)	.006 (.026)	-0.188 (.178)	-0.163 (.160)	.012 (.027)
Growth (Tobin’s q) Q4	-0.083 (.106)	-0.077 (.104)	.048 (.060)	-0.152 (.185)	-0.156 (.190)	.063 (.073)
Diversified parent	.028 (.086)	.079 (.118)	-.341*** (.110)	.044 (.101)	.079 (.120)	-.307** (.121)
Focusing sell-off	-.052 (.050)	-.028 (.032)	-.003 (.007)	-.213 (.264)	-.249 (.286)	-.017 (.050)
Period 1 (1999 – 2008)	.024 (.047)	.047 (.063)	-.029 (.039)	.021 (.046)	.045 (.062)	-.030 (.040)
Traditional media firm	.073 (.067)	.050 (.055)	-.014 (.023)	.072 (.067)	.052 (.057)	-.008 (.024)
Digital media firm	-.034 (.057)	-.073 (.077)	.011 (.045)	-.060 (.081)	-.094 (.096)	.021 (.040)
Interest coverage ratio Q2*Focusing sell-off				.198 (.182)	.196 (.180)	.044 (.030)
Interest coverage ratio Q3*Focusing sell-off				.170 (.165)	.154 (.151)	.029 (.022)
Interest coverage ratio Q4*Focusing sell-off				.139 (.132)	.102 (.105)	.041 (.028)
Growth (Tobin’s q) Q2*Focusing sell-off				.170 (.197)	.163 (.190)	-.023 (.020)
Growth (Tobin’s q) Q3*Focusing sell-off				.188 (.197)	.163 (.178)	-.012 (.020)
Growth (Tobin’s q) Q4*Focusing sell-off				.175 (.200)	.195 (.212)	-.024 (.033)
Diversified parent*Focusing sell-off				-.104 (.126)	-.026 (.104)	-.003 (.042)
Covariates	No	Yes	Yes	No	Yes	Yes
Firm fixed effects	No	No	Yes	No	No	Yes
Year fixed effects	No	No	Yes	No	No	Yes
R <sup>2</sup>	.008	.033	.991	.011	.035	.991
Observations	1266	1266	1266	1266	1266	1266

### 5.3 Hypothesis testing

This section reflects on the results discussed in section 5.1 and 5.2 and relates the results to the hypotheses set in chapter 3. The results reviewed in section 5.1, the univariate analysis, answer research question (1) mentioned in the introduction: “Does corporate restructuring activity in the media industry result in short-term wealth effects?”. Hypotheses 1, 2, 4, 6, 7, 9 and 10 are related to this first research question as they propose expectations regarding cumulative abnormal returns (CARs) received.

Research question (2) is: “*What drives short-term wealth effects of restructuring activity in the media industry?*”. This question can be answered by the results found in the multivariate analysis. Hypothesis 3a, 3b, 5a, 5b, 8a and 8b are associated with research question (2) as they propose drivers of cumulative abnormal returns.

This paragraph is devoted to answering research question (1), starting with hypothesis 1, stating: “*Acquiring media firms’ shareholders receive CARs significantly equal to zero*”. Hypothesis 1 is rejected based on the robust results found in the univariate analysis: positive and significant *CARs*. Over the full sample of 2,436 deals, media M&A yields *CARs* (-1,+1) of 1.52%, significant at a 1% level. This finding supports the assumption that media M&A is consistent with synergistic theory, therefore M&A might be considered as a key strategy to increase scope and enhance revenue streams from advertising and subscriptions. Hypothesis 2 is concerned with domestic and cross-border media M&A: “*Cross-border media acquirers receive lower CARs than domestic media acquirers*”. Although the univariate analysis finds that domestic M&A yields higher *CARs* than cross-border M&A, the difference is not found to be significant for the full sample. However, domestic media M&A does yield significantly higher *CARs* than cross-border media M&A when announced in period 2 (2009 – 2018). This finding is robust over all *C(S)AR* calculations, therefore hypothesis 2 is partially accepted. This result is driven by increased *CARs* from domestic M&A recent decade, possibly the result of greater scepticism towards global media companies and their influence on viewpoint diversity and public interest. The next hypothesis answered through the univariate analysis is hypothesis 4: “*Conglomerate media acquirers receive higher CARs than focusing media acquirers*”. This hypothesis is only supported over the full sample for *C(S)ARs* (-1,+1). When examining *C(S)ARs* (-5,+5), no significant difference is found in *CARs* from focusing M&A and conglomerate M&A. This implies that disparities in abnormal returns from focusing and conglomerate M&A hold for the three-day event window only. The evidence found is not completely robust, hence I partially accept hypothesis 4.

The following hypotheses relate to *CARs* from media sell-offs. Hypothesis 6, “*divesting media firms’ shareholders receive CARs significantly greater than zero*”, is accepted. Results supporting this hypothesis are robust over all *C(S)AR* calculations. Over the full sample of 1,266 media sell-offs, 5.09% *CARs* (-1,+1) are calculated, significant at a 10% level. Implying that media sell-offs are a lucrative restructuring activity, in line with synergistic theory. Hypothesis 7, “*focusing media divestors receive higher CARs than non-focusing media divestors*”, is not accepted. Interestingly, non-focusing media sell-offs yield higher *CARs* than focusing media sell-offs (except for digital media firms) according to the univariate analysis. However, the difference is not found to be significant, therefore the hypothesis cannot be rejected nor accepted.

The last hypotheses answered through the univariate analysis are 9a, 9b, 10a and 10b. Hypothesis 9a argues that “*CARs received from media M&A announced between 1999 and 2008 differ significantly from CARs received from media M&A announced between 2009 and 2018*”.  $C(S)ARs(-5,+5)$  are significantly higher in period 2 (2009 – 2018) than in period 1 (1999 – 2008) for the full media M&A sample, domestic media M&A sample and focusing media M&A sample. Nevertheless,  $C(S)ARs(-1,+1)$  are significantly higher in period 2 than in period 1 solely for the focusing media M&A sample. This might imply delayed information that is better captured by the eleven-day event window. Hence, hypothesis 9a is partially accepted. In period 2, media M&A volume has decreased (figure 1a) and average deal value has increased. One could argue that since media M&A deals have become scarcer, awareness of media M&A deals has become greater and therefore *CARs* were more pronounced. Hypothesis 9b – “*CARs received from media divestitures announced between 1999 and 2008 differ significantly from CARs received from media divestitures announced between 2009 and 2018*” – is not supported by results from the univariate analysis and hence rejected. No significant differences between  $C(S)ARs$  received from media sell-offs announced in period 1 and period 2 is found. Hypothesis 10a and 10b are concerned with differences in *CARs* received by media firms from distinct media subsectors. Hypothesis 10a states: “*Media acquirers from the traditional media sector, telecommunications sector and digital media sector receive significantly dissimilar CARs*”. There is no significant evidence supporting hypothesis 10a, hence hypothesis 10a is rejected. Same holds for hypothesis 10b: “*Divesting parents from the traditional media sector, telecommunications sector and digital media sector receive significantly dissimilar CARs*”. Therefore, hypothesis 10b is also rejected. Rejection of hypothesis 10a and 10b might imply that media firms are more homogeneous than expected, possibly the result of blurred market boundaries (Sullivan & Jiang, 2010).

In this paragraph research question (2), which is concerned with the drivers of *CARs*, is answered. To do so, hypothesis 3a, 3b, 5a, 5b, 8a and 8b must be answered through the results of the multivariate analysis. First, hypothesis 3a argues: “*In media M&A, “target country digitisation” positively influences acquiring firms’ CARs*”. Based on the estimated coefficients for target country digitisation proxies – *internet usage*, *cellular subscriptions* and *broadband subscriptions* – this hypothesis is partially accepted. *Internet usage* and *cellular subscriptions* unexpectedly negatively influence  $CAR(-1,+1)$  in linear regression models including control variables and excluding fixed effects at a 10% significance level. The negative relation could be explained by heavy competition in media markets of highly digitalised target countries. Investors might perceive expanding into highly digitalised target countries as challenging and therefore *CARs*  $(-1,+1)$  are less pronounced. However, this finding is not robust for the full regression model (including fixed effects). *Broadband subscriptions* positively influences  $CAR(-1,+1)$  by .1 pp at a 10% significance level, this finding is robust for the full regression model and when substituting  $CAR(-1,+1)$  by  $CAR(-1,+1)$  “*short EW*”. Next, hypothesis 3b: “*“Target country digitisation” effects acquiring firms’ CARs received from cross-border media M&A stronger*

*than CARs received from domestic media M&A*". Hypothesis 3b is not accepted as there is no significant differential effect found through the multivariate analysis that indicates that the proxies for target country digitisation effect  $CAR(-1,+1)$  stronger in cross-border media M&A. The lacking differential effect might imply that cross-border media M&A is not driven by digitisation levels in target countries. Hypothesis 5a and 5b relate to focusing and conglomerate media M&A. Hypothesis 5a states: "*In media M&A, "operational synergy potential" positively influences acquiring firms' CARs*". This hypothesis is not accepted. The variables that proxy operational synergy potential, *high-tech target*, *SIC code overlap %* and *growth (Tobin's q)* all show some significant estimates; however, these are not robust through all models. Most pronounced is the estimated negative coefficient for *growth (Tobin's q)*. Firms' market valuation is included in the calculation of *growth (Tobin's q)*. If a firms' market valuation is high, investors might perceive stock as overvalued and assume asymmetric information. As a result, M&A activity might be perceived as opportunistic, explaining the negative coefficient estimated for *growth (Tobin's q)*. Hypothesis 5b – "*Operational synergy potential" effects CARs received from conglomerate media M&A stronger than CARs received from focusing media M&A*" – is not accepted due to lacking robust findings.

The last hypotheses, 8a and 8b, relate to drivers of *CARs* in media sell-offs. Hypothesis 8a: "*In media divestitures, "operational synergy potential" positively influences parent firms' CARs*", is partially rejected and partially not accepted. Highly significant coefficients are estimated through the multivariate analysis indicating that diversified parents receive 30.7 to 39.2 pp lower  $CAR(-1,+1)$ . This finding is robust for the full regression model and when substituting  $CAR(-1,+1)$  by  $CAR(-1,+1)$  "*short EW*". Yet, this finding also supports the statement of Chan-Olmsted and Chang (2003) that media conglomerates are not subject to the "diversification discount" due to a unique combination of certain media characteristics. For the explanatory variable *interest coverage ratio* (proxy for financial constraints) and *growth (Tobin's q)* no significant coefficients are estimated. This suggest that the financing hypothesis (Dittmar & Shivdasani, 2003), claiming that "asset sales relax external financial constraints and allow firms to undertake valuable investments that would otherwise be foregone", possibly does not apply to media firms. Lastly, hypothesis 8b states: "*Operational synergy potential" influences CARs received from focusing divestitures stronger than CARs received from non-focusing divestitures*". Hypothesis 8b is not accepted, no significant coefficients are estimated indicating differential effects of the explanatory variables *interest coverage ratio*, *growth (Tobin's q)* and *diversified parent* in focusing media sell-offs.

**Table 21: Hypothesis testing**

	<b>Statement</b>	<b>Rejected/Accepted</b>
Hypothesis 1	Acquiring media firms' shareholders receive CARs significantly equal to zero	Rejected
Hypothesis 2	Cross-border media acquirers receive lower CARs than domestic media acquirers	Partially accepted
Hypothesis 3a	In media M&A, "target country digitisation" positively influences acquiring firms' CARs	Partially accepted
Hypothesis 3b	"Target country digitisation" effects acquiring firms' CARs received from cross-border media M&A stronger than CARs received from domestic media M&A	Not accepted/not rejected
Hypothesis 4	Conglomerate media acquirers receive higher CARs than focusing media acquirers	Partially accepted
Hypothesis 5a	In media M&A, "operational synergy potential" positively influences acquiring firms' CARs	Not accepted/not rejected
Hypothesis 5b	"Operational synergy potential" effects CARs received from conglomerate media M&A stronger than CARs received from focusing media M&A	Not accepted/not rejected
Hypothesis 6	Divesting media firms' shareholders receive CARs significantly greater than zero	Accepted
Hypothesis 7	Focusing media divestors receive higher CARs than non-focusing media divestors	Not accepted/not rejected
Hypothesis 8a	In media divestitures, "operational synergy potential" positively influences parent firms' CARs	Partially rejected/ Not accepted/not rejected
Hypothesis 8b	"Operational synergy potential" influences CARs received from focusing divestitures stronger than CARs received from non-focusing divestitures	Not accepted/not rejected
Hypothesis 9a	CARs received from media M&A announced between 1999 and 2008 differ significantly from CARs received from media M&A announced between 2009 and 2018	Partially accepted
Hypothesis 9b	CARs received from media divestitures announced between 1999 and 2008 differ significantly from CARs received from media divestitures announced between 2009 and 2018	Rejected
Hypothesis 10a	Media acquirers from the traditional media sector, telecommunications sector and digital media sector receive significantly dissimilar CARs	Rejected
Hypothesis 10b	Media divestors from the traditional media sector, telecommunications sector and digital media sector receive significantly dissimilar CARs	Rejected

## CHAPTER 6 Conclusion

This study contributes to the understanding of short-term wealth effects – cumulative abnormal returns (*CARs*) – received from strategic restructuring activities in the media industry. Corporate restructuring is a frequently observed activity in the media industry caused by several shocks (Chon et al., 2003). Especially since the beginning of the 21<sup>st</sup> century, restructuring activity is highly driven by digitisation, the shock incorporating the rise of the internet and smartphones. Prevailing restructuring strategies occurring in the media industry are conglomerate M&A, cross-border M&A and industry focusing divestitures. Accordingly, these strategies are highlighted in this paper. The phenomenon has attracted attention from scholars, mostly from the field of media economics, law and politics, on its implications for viewpoint diversity, public interest and content quality (Ho & Quinn, 2008; Baker, 2007; Croteau & Hoynes, 2006). The objective of this paper is to approach corporate restructuring in the media industry from a financial economics perspective. Moreover, the study adds to missing academic work on drivers of wealth effects by corporate restructuring in the media industry and proposes media industry specific self-designed drivers derived from literature on media economics and cross-sectional corporate restructuring. This study intends to answer the following research questions:

- (1) *Does corporate restructuring activity within the media industry result in short-term wealth effects?*
- (2) *“What drives short-term wealth effects of restructuring activity in the media industry?”*

The research is performed by calculating *CARs* received from announcements of corporate restructuring transactions between 1999 and 2018 over two samples: a sample of 2,436 media M&A deals and a sample of 1,266 media sell-off transactions. Samples include transactions pursued by North American and Western European media firms. The univariate analysis is designed to answer the first research question by statistically verifying the significance of the calculated *CARs*. To ensure robustness, abnormal returns are calculated through different approaches and cumulated over a three-day and an eleven-day event window. All calculations are based on the market model method.

Robust results from the univariate analysis exhibit that both, media M&A and media sell-offs, yield positive and significant *CARs*. This finding supports the assumption that corporate restructuring by media firms is in line with synergistic theory (Mulherin & Boone, 2000). Hence, corporate restructuring might be considered as a key strategy to increase scope and enhance revenue streams from advertising and subscriptions. Furthermore, according to the results, domestic media M&A yields significantly higher *CARs* than cross-border media M&A only when announced between 2009 and 2018. This result is possibly driven by enhanced scepticism towards global media companies and their influence on viewpoint diversity and public interest. The univariate analysis presents semi-strong evidence indicating that conglomerate media acquirers significantly outperform focusing media acquirers in terms of *CARs*.

This is in accordance with the findings of Chan-Olmsted and Chang (2003) that suggest that media conglomerates are not subject to the “diversification discount” due to a unique combination of certain media firm specific characteristics. When comparing *CARs* from non-focusing and focusing media sell-offs, no significant differences are found. Examining disparities in *CARs* from media restructuring announcements in different time periods yields semi-strong results. Results imply that media M&A deals announced between 2009 – 2018 received significantly greater *CARs* than media M&A deals announced between 1999 – 2008. One could argue that since media M&A deals have become scarcer but greater in size recent decade (figure 1a), awareness of media M&A deals has increased and therefore *CARs* were more pronounced. No significant disparities in *CARs* are found for media sell-offs announced in different time periods. When comparing *CARs* received from corporate restructuring announcements by firms from distinct media subsectors, no significant differences are found. The former indicates that media firms are possibly more homogenous than expected, indicating “digital convergence” (Doyle, 2013).

The multivariate analysis consists of linear and non-linear regression models designed to answer research question (2). Self-designed proposed drivers of *CARs* from media M&A are “target country digitisation” and “operational synergy potential”. Target country digitisation does solely impact *CARs* positively, robustly and significantly through target country broadband subscriptions. Target country internet usage and cellular subscriptions appeared to have a weakly significant negative impact on *CARs*. The unexpected negative relation could be explained by unfavourable heavy competition in media markets of highly digitalised target countries. Furthermore, no robust estimates are found for the impact of media acquirers’ operational synergy potential on *CARs*. Also, no differential effects are found for target country digitisation in domestic and cross-border M&A. Same holds for differential effects of acquirer operational synergy potential in focusing and conglomerate M&A. Interestingly, from the multivariate analysis it turned out that traditional media firms have a strongly significant and robust effect on *CARs* in comparison to telecommunication firms. Traditional media firms are also most active in corporate restructuring (tables 8 and 11) and suffered the greatest from digitisation (Pew Research Center, 2017).

The proposed driver of *CARs* from media sell-offs is also media firms’ “operational synergy potential”, expressed by: parent growth options, parent financial constraints and parent diversification. Unexpectedly, results indicate a robust and highly significant negative impact of parent diversification on *CARs*. To some extent, this finding also supports the statement of Chan-Olmsted and Chang (2003) that media conglomerates are not subject to the “diversification discount”. No further significant effects are found through the multivariate analysis for media sell-offs.

### **6.1 Limitations and recommendations for further research**

This study is subject to several limitations regarding the datasets and research design. First, as mentioned in the section 4.1.2, only a very limited number of media equity carve-outs and spin-offs were identified during the data gathering process. Therefore, these transaction formats were excluded from the sample and the sample consisted solely of media sell-off transactions. Yet, from cross-sectional academic research on divestiture performance I learned that distinct divestiture transaction formats yield different wealth effects. Including all divestiture transaction formats within the media industry could have led to other results and estimates from the conducted analyses regarding the divestiture sample. Additionally, this study examines M&A and sell-off transactions pursued by public media firms that acquire and dispose public as well as private targets. Since financial data of private targets is inaccessible, it was not possible to control for certain target firm characteristics in the multivariate analysis that might have had significant impact on wealth effects. For instance, it was not possible to control for target firm size and profitability. Furthermore, two distinctive benchmark market indices were applied in the event studies performed, the S&P Europe 350 for Western European firms and the S&P 500 for North American firms. Conducting the event study with country or industry specific benchmark market indices might have led to improved estimates of normal returns models. Especially when considering dynamics surrounding the Brexit recent years, using a British market index instead of a European market index as a benchmark market index for British media firms might have led to more precise calculations of abnormal returns.

Although the univariate analysis in this study identified significantly positive *CARs* for both corporate restructuring strategies, it was unable to correctly determine drivers of these *CARs*. Accordingly, as a suggestion for further research, it might be valuable to investigate other media firm and industry specific factors. As mentioned in the literature review, audiences generated by media firm are of great importance as their primary revenue stream from advertising is strongly dependent on this. Exact data on media firms' scope and advertising revenues is not readily available, especially not for such an extensive sample. Reducing the study size to a case study allows for collecting in-depth data on media specific KPI's and adding qualitative aspects. Insights gathered from case studies might shed light on drivers of abnormal returns. Another highly interesting and impactful aspect of the media industry, where this research did not touch upon, is regulation. Besides digitisation, deregulation has also had great impact on corporate restructuring activity in media. Determining the effect of certain regulatory systems on abnormal returns might yield relevant insights. Ultimately, as this research left long term effects of restructuring activity out of consideration, it is advised to conduct a comparable research on long term wealth effects of restructuring activity.

## REFERENCES

- Alexandridis, G., Antypas, N., & Travlos, N. (2017). Value creation from M&As: New evidence. *Journal of Corporate Finance*, 45, 632-650.
- Alexandridis, G., Mavrovitis, C. F., & Travlos, N. G. (2012). How have M&As changed? Evidence from the sixth merger wave. *The European Journal of Finance*, 18(8), 663-688.
- Anand, J., & Delios, A. (2002). Absolute and relative resources as determinants of international acquisitions. *Strategic Management Journal*, 23(2), 119-134.
- Andrade, G., Mitchell, M., & Stafford, E. (2001). New evidence and perspectives on mergers. *Journal of Economic Perspectives*, 15(2), 103-120.
- Baker, C. (2007). *Media concentration and democracy: Why ownership matters* (Communication, society, and politics). United Kingdom: Cambridge University Press.
- Pew Research Center (2017). *State of the News Media*. Retrieved from <https://www.pewresearch.org/topics/state-of-the-news-media/>
- Berger, P. G., & Ofek, E. (1995). Diversification's effect on firm value. *Journal of Financial Economics*, 37(1), 39-65.
- Berkovitch, E., & Narayanan, M. P. (1993). Motives for takeovers: An empirical investigation. *Journal of Financial and Quantitative Analysis*, 28(3), 347-362.
- Boehmer, E., Masumeci, J., & Poulsen, A. B. (1991). Event-study methodology under conditions of event-induced variance. *Journal of Financial Economics*, 30(2), 253-272.
- Bowman, E. H., & Singh, H. (1993). Corporate restructuring: Reconfiguring the firm. *Strategic Management Journal*, 14(S1), 5-14.
- Brauer, M. (2006). What have we acquired and what should we acquire in divestiture research? A review and research agenda. *Journal of Management*, 32(6), 751-785.
- Brown, S. J., & J. B. Warner (1980). Measuring security price performance. *Journal of Financial Economics*, 8(3), 205-258.
- Bruner, R. F. (2002). Does M&A pay? A survey of evidence for the decision-maker. *Journal of Applied Finance*, 12(1), 48-68.
- Capasso, A., & Meglio, O. (2007). The evolving role of mergers and acquisitions in competitive strategy research. SSRN working paper. University of Sannio
- Chahine, S., & Zeidan, M. J. (2014). Corporate governance and market performance of parent firms following equity carve-out announcements. *Journal of Management & Governance*, 18(2), 471-503.
- Chan-Olmsted, S. M., & Chang, B. H. (2003). Diversification strategy of global media conglomerates: Examining its patterns and determinants. *The Journal of Media Economics*, 16(4), 213-233.
- Chatterjee, S. (1986). Types of synergy and economic value: The impact of acquisitions on merging and rival firms. *Strategic Management Journal*, 7(2), 119-139.

- Chon, B. S., Choi, J. H., Barnett, G. A., Danowski, J. A., & Joo, S. H. (2003). A structural analysis of media convergence: Cross-industry mergers and acquisitions in the information industries. *The Journal of Media Economics*, 16(3), 141-157.
- Chung, K. H., & Pruitt, S. W. (1994). A simple approximation of Tobin's q. *Financial Management*, 23(3), 70-74.
- Comment, R., & Jarrell, G. A. (1995). Corporate focus and stock returns. *Journal of Financial Economics*, 37(1), 67-87.
- Croteau, D., & Hoynes, W. (2006). *The business of media : Corporate media and the public interest* (2nd ed.). Thousand Oaks, CA: Pine Forge Press.
- Cusatis, P. J., Miles, J. A., & Woolridge, J. R. (1993). Restructuring through spinoffs: The stock market evidence. *Journal of Financial Economics*, 33(3), 293-311.
- Daley, L., Mehrotra, V., & Sivakumar, R. (1997). Corporate focus and value creation evidence from spinoffs. *Journal of Financial Economics*, 45(2), 257-281.
- Desai, H., & Jain, P. C. (1999). Firm performance and focus: long-run stock market performance following spinoffs. *Journal of Financial Economics*, 54(1), 75-101.
- Dittmar, A., & Shivdasani, A. (2003). Divestitures and divisional investment policies. *The Journal of Finance*, 58(6), 2711-2744.
- Doyle, G. (2013). *Understanding media economics* (2nd ed.). London, United Kingdom: SAGE.
- Eckbo, B. E., & Thorburn, K. S. (2008). Chapter 16 - Corporate restructuring: breakups and LBOs. *Handbook of Empirical Corporate Finance*, 2, 431-495
- Fama, E. F., Fisher, L., Jensen, M. C., & Roll, R. (1969). The adjustment of stock prices to new information. *International Economic Review*, 10(1), 1-21.
- Farrar, D. E., & Glauber, R. R. (1967). Multicollinearity in regression analysis: the problem revisited. *The Review of Economic and Statistics*, 49(1), 92-107.
- Goergen, M., & Renneboog, L. (2004). Shareholder wealth effects of European domestic and cross-border takeover bids. *European Financial Management*, 10(1), 9-45.
- Grocer, S. (2018, June 15). What Happened to AOL Time Warner? Retrieved from <https://www.nytimes.com/>
- Hite, G. L., & Owers, J. E. (1983). Security price reactions around corporate spin-off announcements. *Journal of Financial Economics*, 12(4), 409-436.
- Ho, D. E., & Quinn, K. M. (2008). Viewpoint diversity and media consolidation: An empirical study. *Stanford Law Review*, 61(4), 781-868.
- Hubbard, R. G., & Palia, D. (1999). A reexamination of the conglomerate merger wave in the 1960s: An internal capital markets view. *The Journal of Finance*, 54(3), 1131-1152.
- Jain, B. A., Kini, O., & Shenoy, J. (2011). Vertical divestitures through equity carve-outs and spin-offs: A product markets perspective. *Journal of Financial Economics*, 100(3), 594-615.

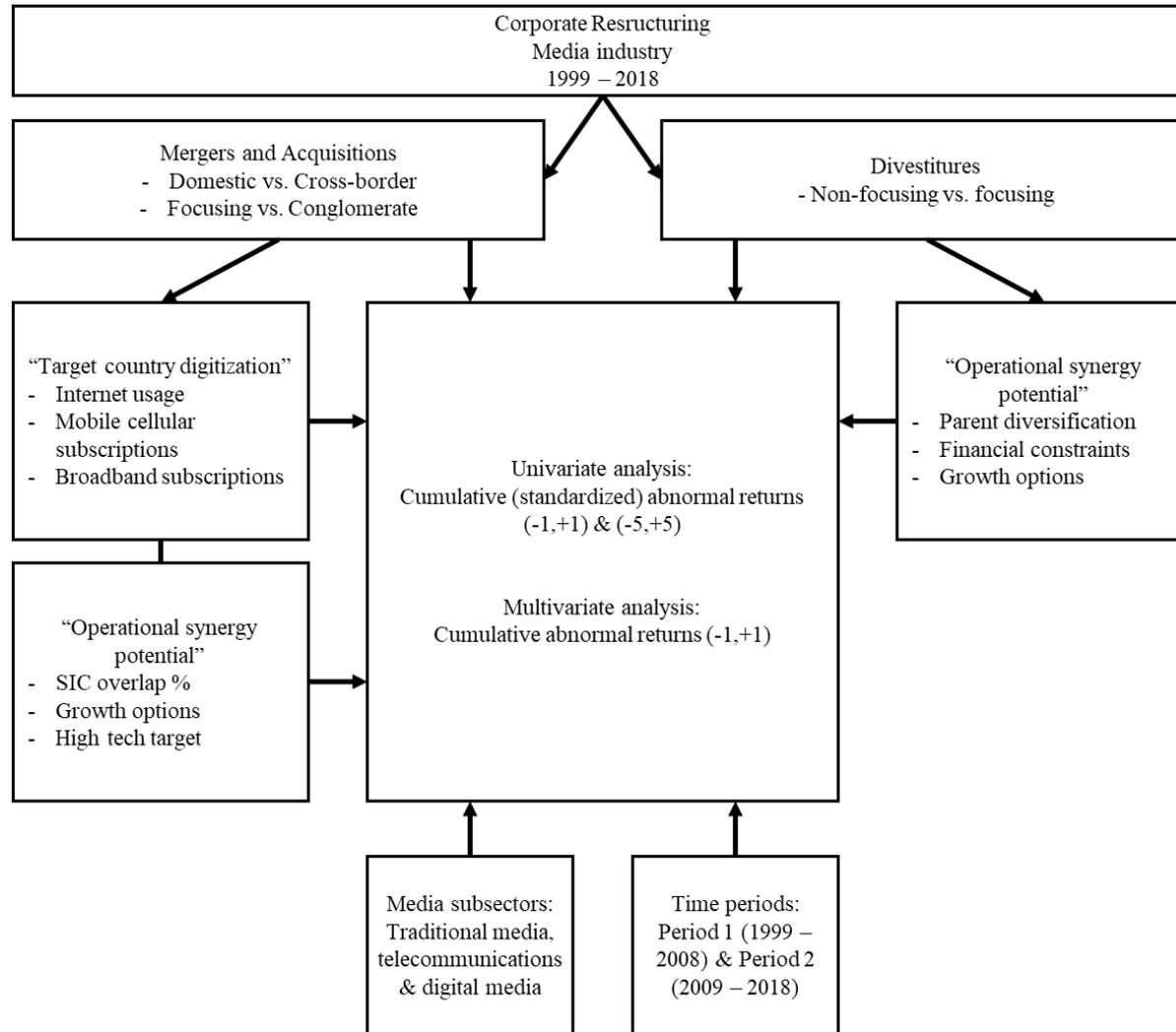
- Jensen, M. (1978). Some anomalous evidence regarding market efficiency. *Journal of Financial Economics*, 6(2-3), 95-101
- Jensen, M. C., & Ruback, R. S. (1983). The market for corporate control: The scientific evidence. *Journal of Financial Economics*, 11(1-4), 5-50.
- Katz, M. L., & Shapiro, C. (1994). Systems competition and network effects. *Journal of Economic Perspectives*, 8(2), 93-115.
- Kile, C. O., & Phillips, M. E. (2009). Using industry classification codes to sample high-technology firms: Analysis and recommendations. *Journal of Accounting, Auditing & Finance*, 24(1), 35-58.
- Lee, D., & Madhavan, R. (2010). Divestiture and firm performance: A meta-analysis. *Journal of Management*, 36(6), 1345-1371.
- Lowinski, F., Schiereck, D., & Thomas, T. W. (2004). The effect of cross-border acquisitions on shareholder wealth—evidence from Switzerland. *Review of Quantitative Finance and Accounting*, 22(4), 315-330.
- Malmendier, U., & Tate, G. (2008). Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics*, 89(1), 20-43.
- Martynova, M., & Renneboog, L. (2006). Mergers and acquisitions in Europe. *Advances in Corporate Finance and Asset Pricing*, 13-75.
- Martynova, M., & Renneboog, L. (2008). A century of corporate takeovers: What have we learned and where do we stand? *Journal of Banking & Finance*, 32(10), 2148-2177.
- Mateev, M., & Andonov, K. (2016). Do cross-border and domestic bidding firms perform differently? New evidence from continental Europe and the UK. *Research in International Business and Finance*, 37, 327-349.
- MacKinlay, A. C. (1997). Event studies in economics and finance. *Journal of Economic Literature*, 35(1), 13-39.
- Maquieira, C., Megginson, W., & Nail, L. (1998). Wealth Creation versus wealth redistributions in pure stock-for-stock mergers. *Journal of Financial Economics*, 48(1), 3-33.
- Meng, Y., & Sutton, N. K. (2017). Is the grass on the other side greener? Testing the cross-border effect for US acquirers. *Review of Quantitative Finance and Accounting*, 48(4), 917-937.
- Moeller, S. B., & Schlingemann, F. P. (2005). Global diversification and bidder gains: A comparison between cross-border and domestic acquisitions. *Journal of Banking & Finance*, 29(3), 533-564.
- Moeller, S. B., Schlingemann, F. P., & Stulz, R. M. (2004). Firm size and the gains from acquisitions. *Journal of Financial Economics*, 73(2), 201-228.
- Morck, R., Shleifer, A., & Vishny, R. W. (1990). Do managerial objectives drive bad acquisitions? *The Journal of Finance*, 45(1), 31-48.
- Mulherin, J. H., & Boone, A. L. (2000). Comparing acquisitions and divestitures. *Journal of Corporate Finance*, 6(2), 117-139.

- Nahass, G., Rooney, T., Kennedy, P. G., & Bistis, L. M. (2016) *Megadeals transforming the entertainment, media and communications sector* (PriceWaterhouseCoopers). Retrieved from PriceWaterhouseCoopers website: <https://www.pwc.com/us/en/deals/publications/assets/pwc-emc-megadeals-2016.pdf>
- Noam, E. M. (Ed.). (2016). *Who owns the world's media?: media concentration and ownership around the world*. United Kingdom: Oxford University Press.
- Owers, J., & Alexander, A. (2011). Market reactions to merger, acquisition, and divestiture announcements in the media industries. *International Journal on Media Management*, 13(4), 253-276.
- Patell, J. M. (1976). Corporate forecasts of earnings per share and stock price behavior: Empirical test. *Journal of Accounting Research*, 14(2), 246-276.
- Peltier, S. (2004). Mergers and acquisitions in the media industries: Were failures really unforeseeable? *Journal of Media Economics*, 17(4), 261-278.
- Picard, R. G. (2011). *The economics and financing of media companies*. New York: Fordham University Press.
- Purdy, S., Wong, P., & Harris, P. (2016). *Stop the presses!* (KPMG). Retrieved from KPMG website: <https://home.kpmg.com/content/dam/kpmg/co/pdf/co-17-01-08-tmt-stop-the-presses.pdf>
- Roll, R. (1986). The hubris hypothesis of corporate takeovers. *The Journal of Business*, 59(2), 197-216.
- Schlesinger, P., & Doyle, G. (2015). From organizational crisis to multi-platform salvation? Creative destruction and the recomposition of news media. *Journalism*, 16(3), 305-323.
- Schlingemann, F. P., Stulz, R. M., & Walkling, R. A. (2002). Divestitures and the liquidity of the market for corporate assets. *Journal of Financial Economics*, 64(1), 117-144.
- Schumpeter, J. (1942). *Capitalism, Socialism and Democracy*. London, United Kingdom: Allen & Unwin
- Shirky, C. (2010). *Cognitive surplus : Creativity and generosity in a connected age*. New York: Penguin Press.
- Shleifer, A., & Vishny, R. W. (2003). Stock market driven acquisitions. *Journal of Financial Economics*, 70(3), 295-311.
- Sullivan, D., & Jiang, Y. (2010). Media convergence and the impact of the internet on the M&A activity of large media companies. *Journal of Media Business Studies*, 7(4), 21-40.
- Veld, C., & Veld-Merkoulova, Y. V. (2004). Do spin-offs really create value? The European case. *Journal of Banking & Finance*, 28(5), 1111-1135.
- Worldbank (2018). International Telecommunication Union, World Telecommunication/ICT Development Report and database [indicator: Fixed broadband subscriptions (per 100 people)]. Retrieved from <https://data.worldbank.org/indicator/IT.NET.BBND.P2>
- Worldbank (2018). International Telecommunication Union, World Telecommunication/ICT Development Report and database [indicator: Individuals using the Internet (% of population)]. Retrieved from <https://data.worldbank.org/indicator/IT.NET.USER.ZS>

Worldbank (2018). International Telecommunication Union, World Telecommunication/ICT Development Report and database [indicator: Mobile cellular subscriptions (per 100 people)]. Retrieved from <https://data.worldbank.org/indicator/IT.CEL.SETS.P2>

# APPENDIX

## Appendix 1 – Conceptual framework



## Appendix 2 – Media industry four-digit SIC codes

*Table 22: Overview of four-digit industry SIC codes corresponding to the media industry (SICCODE.com)*

<b>SIC code</b>	<b>High Tech</b>	<b>Description</b>
2711	No	Newspapers: Publishing, or Publishing and Printing
2721	No	Periodicals: Publishing, or Publishing and Printing
2731	No	Books: Publishing, or Publishing and Printing
2732	No	Book printing
2741	No	Miscellaneous Publishing
2752	No	Commercial Printing, Lithographic
2754	No	Commercial Printing, Gravure
2759	No	Commercial Printing, Not elsewhere classified
2761	No	Manifold Business Forms
2771	No	Greeting Cards
2782	No	Blankbooks, Looseleaf Binders, and Devices
2789	No	Bookbinding and Related Work
2791	No	Typesetting
2796	No	Platemaking and related services
4812	Yes	Radiotelephone communications
4813	Yes	Telephone Communications, except Radiotelephone
4822	Yes	Telegraph and other Message Communications
4832	No	Radio Broadcasting Stations
4833	No	Television Broadcasting Stations
4841	No	Cable and other Pay Television Services
4899	Yes	Communication Services Not Elsewhere Classified
5192	No	Wholesale trade: Books, Periodicals, and Newspapers
5994	No	Retail trade: News Dealers and Newsstands
7374	Yes	Computer Processing and Data Preparation and Processing Services
7375	Yes	Information Retrieval Services
7812	No	Motion Picture and Video Tape Production
7819	No	Services Allied to Motion Picture Production
7822	No	Motion Picture and Video Tape Distribution
7829	No	Services Allied to Motion Picture Distribution
7832	No	Motion Pictures Theatres, except drive-in
7833	No	Drive-In Motion Pictures Theatres
7841	No	Video Tape Rental

## Appendix 3 – Control variables

**Table 23: Control variables included in the media M&A regression models**

Variable name	Description
Deal level	
<i>Method of payment</i>	Dummy variable that equals one when > 50% of the transaction value is paid in cash. Obtained from Thomson One
<i>Attitude</i>	Dummy variable that equal one when the transaction has a friendly attitude. Obtained from Thomson One
<i>Relative value</i>	Variable that represents the relative value of the deal as a proxy for deal size. Calculated as <i>Transaction Value/Acquirer Market Capitalisation</i> . Data obtained from FactSet 30 trading days before announcement of the transaction and Thomson One
Firm level	
<i>Ln (Market capitalisation)</i>	Logarithmic function of acquirer market capitalisation as a proxy for firm size. Obtained from FactSet 30 trading days before the announcement date of the transaction
<i>Ln (1+Total assets)</i>	Logarithmic function of the acquirer total assets as a proxy for firm size. Obtained from FactSet 30 trading days before the announcement date of the transaction
<i>Return on assets</i>	Variable that represents return on assets as a proxy for acquirer profitability. Calculated as <i>EBITDA/Total Assets</i> . EBITDA is used as a profit measure because it is less affected by special items. Data obtained from FactSet 30 trading days before announcement date of the transaction
<i>EBITDA margin</i>	Variable that represents the EBITDA margin as a proxy for acquirer profitability. Calculated as <i>EBITDA/Total revenue</i> . Data obtained from FactSet 30 trading days before announcement of the transaction
<i>Debt-to-equity ratio</i>	Variable that represents the debt-to-equity ratio as a proxy for firm leverage. Calculated as <i>Total Debt/Total Equity</i> . Data obtained from FactSet 30 trading days before announcement of the transaction
<i>Debt-to-assets ratio</i>	Variable that represents the debt-to-assets ratio as a proxy for firm leverage. Calculated as <i>Total Debt/Total Assets</i> . Data obtained from FactSet 30 trading days before announcement of the transaction
<i>Target status</i>	Dummy variable that equals one if the target is a publicly listed entity. Obtained from Thomson One

**Table 24: Control variables included in the media sell-off regression models**

Variable name	Description
Deal level	
<i>Relative value</i>	Variable that represents the relative value of the deal as a proxy for deal size. Calculated as <i>Transaction Value/Parent Market Capitalisation</i> . Data obtained from FactSet 30 trading days before announcement of the transaction and Thomson One
<i>Attitude</i>	Dummy variable that equal one when the transaction has a friendly attitude. Obtained from Thomson One
Firm level	
<i>Ln (Market capitalisation)</i>	Logarithmic function of parent market capitalisation as a proxy for firm size. Obtained from FactSet 30 trading days before the announcement date of the transaction
<i>Ln (1+Total assets)</i>	Logarithmic function of the parent total assets as a proxy for firm size. Obtained from FactSet 30 trading days before the announcement date of the transaction
<i>Return on assets</i>	Variable that represents return on assets as a proxy for acquirer profitability. Calculated as <i>EBITDA/Total Assets</i> . EBITDA is used as a profit measure because it is less affected by special items. Data obtained from FactSet 30 trading days before announcement date of the transaction
<i>EBITDA margin</i>	Variable that represents the EBITDA margin as a proxy for acquirer profitability. Calculated as <i>EBITDA/Total revenue</i> . Data obtained from FactSet 30 trading days before announcement of the transaction

## Appendix 4 – Correlation matrices

**Table 25: Correlation matrix media M&A**

Pearson correlation matrix showing correlation coefficients between MMCAR (-1, +1) and all other explanatory and control variables. Explanatory variables are described in section 4.2.2. Control variables are described in appendix 3. MMCAR (-1, +1) is the market model cumulative abnormal return calculated by a 250-trading day (twelve-month) estimation window. MMCAR (-1, +1) Short EW is the market model cumulative abnormal return calculated by a 125-trading day estimation window (six-month). “Short EW” stands for “short estimation window”. “Cellular sub.” stands for cellular subscriptions, “Broadband sub.” stands for broadband subscriptions, “Telecom. firm” stands for telecommunications firm and “Trad. med firm” stands for traditional media firm. P-values in parentheses. \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% level respectively.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. MMCAR (-1, +1)	1.000												
2. MMCAR (-1, +1) Short EW	.968*** (.000)	1.000											
3. Internet usage	.013 (.520)	.013 (.521)	1.000										
4. Cellular sub.	.007 (.749)	.003 (.885)	.676*** (.000)	1.000									
5. Broadband sub.	.025 (.231)	.020 (.336)	.782*** (.000)	.763*** (.000)	1.000								
6. Growth (Tobin's q)	-.070*** (.001)	-.070*** (.001)	-.191*** (.000)	-.204*** (.000)	-.203*** (.000)	1.000							
7. SIC code overlap %	-.000 (.997)	.001 (.981)	-.029 (.161)	-.043** (.036)	-.064** (.002)	.016 (.421)	1.000						
8. High-tech target	.016 (.444)	.023 (.260)	.054*** (.009)	.020 (.333)	.049** (.019)	.111*** (.000)	.178*** (.000)	1.000					
9. Cross-border M&A	-.020 (.315)	-.024 (.235)	-.111*** (.000)	.082*** (.000)	.003 (.895)	-.021 (.291)	.033 (.107)	.062*** (.002)	1.000				
10. Conglomerate M&A	.039* (.057)	.035* (.081)	.069*** (.001)	.115*** (.000)	.096*** (.000)	-.024 (.246)	-.517*** (.000)	-.098*** (.000)	-.000 (.994)	1.000			
11. Period 1 (1999-2008)	-.026 (.200)	-.022 (.282)	-.557*** (.000)	-.614*** (.000)	-.756*** (.000)	.136*** (.000)	.058*** (.004)	-.022 (.277)	-.034* (.095)	-.090*** (.000)	1.000		
12. Period 2 (2009-2018)	.026 (.200)	.022 (.282)	.557*** (.000)	.614*** (.000)	.756*** (.000)	-.136*** (.000)	-.058*** (.004)	.022 (.277)	.034 (.095)	.090*** (.000)	-.100 (1.000)	1.000	
13. Telecom. firm	.008 (.691)	.012 (.562)	-.012 (.553)	.014 (.494)	.012 (.575)	-.065*** (.001)	.080*** (.000)	.412*** (.000)	.019 (.347)	.038* (.062)	.004 (.848)	-.004 (.848)	1.000
14. Trad. media firm	-.025 (.223)	-.028 (.165)	-.077*** (.000)	-.045** (.027)	-.054** (.010)	-.173*** (.000)	-.150*** (.000)	-.585*** (.000)	-.030 (.142)	.066*** (.001)	.035* (.083)	-.035* (.083)	-.549*** (.000)
15. Digital media firm	.019 (.356)	.019 (.355)	.097*** (.000)	.035* (.086)	.046** (.026)	.254*** (.000)	.082*** (.000)	.220*** (.000)	.013 (.519)	-.110*** (.000)	-.042** (.037)	.042** (.037)	-.415*** (.000)
16. Method	-.027 (.192)	-.031 (.130)	.148*** (.000)	.097*** (.000)	.131*** (.000)	-.157*** (.000)	-.034* (.091)	-.016 (.441)	.055*** (.007)	.034* (.090)	-.049** (.015)	.049** (.015)	-.014 (.494)
17. Attitude	.003 (.899)	.002 (.908)	.016 (.449)	-.018 (.390)	.009 (.661)	.005 (.801)	.011 (.590)	.003 (.900)	-.059*** (.004)	.011 (.574)	-.037* (.071)	.037* (.071)	-.037* (.071)
18. Relative value	.179*** (.000)	.196*** (.000)	.047** (.023)	.007 (.753)	.030 (.151)	-.084*** (.000)	.042*** (.038)	-.059*** (.004)	-.072*** (.000)	-.004 (.834)	-.016 (.443)	.016 (.443)	-.012 (.568)
19. Target status	-.059*** (.004)	-.060*** (.003)	-.047** (.025)	-.090*** (.000)	-.043** (.038)	-.003 (.879)	.001 (.972)	.048** (.018)	-.019 (.347)	-.023 (.264)	.033 (.105)	-.033 (.105)	.080*** (.000)

20. Ln (market cap.)	-145*** (.000)	-.149*** (.000)	-.109*** (.000)	-.074*** (.000)	-.037* (.080)	.064*** (.002)	-.019 (.361)	.075*** (.000)	.160*** (.000)	-.062*** (.002)	-.033 (.103)	.033 (.103)	.156*** (.000)
21. Ln (total assets)	-.102*** (.000)	-.102*** (.000)	-.022 (.300)	.003 (.873)	.049** (.019)	-.278*** (.000)	-.024 (.242)	.001 (.968)	.138*** (.000)	-.053** (.010)	-.110*** (.000)	.110*** (.000)	.181*** (.000)
22. Return on assets	-.033 (.101)	-.031 (.122)	.109*** (.000)	.144*** (.000)	.192*** (.000)	-.216*** (.000)	-.039 (.054)	-.083*** (.000)	.080*** (.000)	.012 (.548)	-.145*** (.000)	.145*** (.000)	.062*** (.002)
23. EBITDA margin	-.018 (.367)	-.021 (.304)	.096*** (.000)	.133*** (.000)	.165*** (.000)	-.275*** (.000)	-.001 (.953)	-.098*** (.000)	.069*** (.001)	-.032 (.116)	-.131*** (.000)	.131*** (.000)	.054*** (.007)
24. Debt-to-equity ratio	.006 (.784)	.005 (.823)	.004 (.857)	.032 (.123)	.066*** (.002)	-.096*** (.000)	.075*** (.000)	.003 (.895)	-.039* (.053)	-.051** (.011)	-.135*** (.000)	.135*** (.000)	.188*** (.000)
25. Debt-to-assets ratio	-.008 (.678)	-.006 (.762)	-.053** (.012)	-.041** (.046)	.009 (.675)	-.188*** (.000)	.082*** (.000)	-.049** (.015)	-.007 (.733)	-.074*** (.000)	-.074*** (.000)	.074*** (.000)	.211*** (.000)

<b>Continued</b>	14	15	16	17	18	19	20	21	22	23	24	25
14. Trad. media firm	1.000											
15. Digital media firm	-.532*** (.000)	1.000										
16. Method	.024 (.236)	-.012 (.551)	1.000									
17. Attitude	-.007 (.737)	.045** (.028)	.014 (.495)	1.000								
18. Relative value	.025 (.225)	-.015 (.458)	-.101*** (.000)	-.047** (.020)	1.000							
19. Target status	-.028 (.173)	-.051** (.012)	.024 (.228)	-.092*** (.000)	.131*** (.000)	1.000						
20. Ln (market cap.)	.013 (.526)	-.172*** (.000)	.122*** (.000)	-.086*** (.000)	-.310*** (.000)	.268*** (.000)	1.000					
21. Ln (total assets)	.118*** (.000)	-.312*** (.000)	.148*** (.000)	-.086*** (.000)	-.195*** (.000)	.266*** (.000)	.904*** (.000)	1.000				
22. Return on assets	.130*** (.000)	-.204*** (.000)	.185*** (.000)	-.013 (.528)	-.186*** (.000)	.055*** (.006)	.386*** (.000)	.410 (.000)	1.000			
23. EBITDA margin	.152*** (.000)	-.220*** (.000)	.166*** (.000)	-.016 (.417)	-.160*** (.000)	.085*** (.000)	.383*** (.000)	.446*** (.000)	.785*** (.000)	1.000		
24. Debt-to-equity ratio	.049** (.016)	-.244*** (.000)	-.013 (.520)	-.016 (.431)	.086*** (.000)	.094*** (.000)	.094*** (.000)	.213*** (.000)	.054*** (.008)	.091*** (.000)	1.000	
25. Debt-to-assets ratio	.143*** (.000)	-.369 (.000)	-.018 (.362)	-.006 (.758)	.065 (.002)	.108 (.000)	.223 (.000)	.380 (.000)	.158*** (.000)	.218*** (.000)	.782*** (.000)	1.000

**Table 26: Correlation matrix media sell-offs**

Pearson correlation matrix showing correlation coefficients between MMCAR (-1, +1) and all other explanatory and control variables. Explanatory variables are described in section 4.2.2. Control variables are described in appendix 3. MMCAR (-1, +1) is the market model cumulative abnormal return calculated by a 250-trading day (twelve-month) estimation window. MMCAR (-1, +1) Short EW is the market model cumulative abnormal return calculated by a 125-trading day estimation window (six-month). “Short EW” stands for “short estimation window”. “Telecom. firm” stands for telecommunications firm and “Trad. med firm” stands for traditional media firm. P-values in parentheses. \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% level respectively.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. MMCAR (-1, +1)	1.000												
2. MMCAR (-1, +1) Short EW	1.000*** (.000)	1.000											
3. Growth (Tobin's q)	-.013 (.642)	-.013 (.654)	1.000										
4. Debt-to-assets ratio	-.005 (.873)	-.005 (.870)	.032 (.251)	1.000									
5. Interest coverage ratio	-.092*** (.001)	-.091*** (.001)	.250*** (.000)	-.132*** (.000)	1.000								
6. Parent diversification	-.004 (.887)	-.004 (.886)	.016 (.569)	-.183*** (.000)	.052* (.066)	1.000							
7. Focusing sell-off	-.027 (.336)	-.027 (.339)	.069** (.014)	-.106*** (.000)	.102*** (.000)	.118*** (.000)	1.000						
8. Period 1 (1999-2008)	.014 (.626)	.014 (.619)	.154*** (.000)	.016 (.566)	-.053* (.060)	-.014 (.632)	-.011 (.705)	1.000					
9. Period 2 (2009-2018)	-.014 (.626)	-.014 (.619)	-.154*** (.000)	-.016 (.566)	.053* (.059)	.014 (.632)	.011 (.705)	-1.000 (1.000)	1.000				
10. Trad. media firm	.030 (.280)	.031 (.276)	-.118* (.000)	.025 (.371)	.141*** (.000)	-.144*** (.000)	.019 (.500)	-.018 (.520)	.018 (.520)	1.000			
11. Telecom. firm	-.030 (.282)	-.031 (.278)	.025 (.371)	.039 (.165)	-.010 (.711)	.171*** (.000)	.044 (.116)	.061** (.030)	-.061** (.030)	-.798*** (.000)	1.000		
12. Digital media firm	-.001 (.978)	-.001 (.976)	.147*** (.000)	-.101*** (.000)	-.207*** (.000)	-.039 (.166)	-.099*** (.000)	.067** (.017)	.067** (.017)	-.336*** (.000)	-.300*** (.000)	1.000	
13. Attitude	.002 (.934)	.003 (.928)	.038 (.181)	-.014 (.618)	.010 (.731)	-.023 (.411)	.035 (.214)	.033 (.242)	-.033 (.242)	-.022 (.440)	.016 (.562)	.009 (.751)	1.000
14. Relative value	.171*** (.000)	.170*** (.000)	-.068** (.016)	0.257*** (.000)	-.273*** (.000)	-.109*** (.000)	-.117*** (.000)	-.038 (.182)	.038 (.182)	.013 (.653)	-.106*** (.000)	.146*** (.000)	-.010 (.712)
15. Ln (Market cap)	-.095*** (.001)	-.094*** (.001)	.153*** (.000)	-.107*** (.000)	.354*** (.000)	.226*** (.000)	.154*** (.000)	.082*** (.004)	-.082*** (.004)	-.230*** (.000)	.423*** (.000)	-.298*** (.000)	.002 (.949)
16. Ln (Total assets)	-.065** (.020)	-.065** (.021)	-.123*** (.000)	.037 (.192)	.248*** (.000)	.189*** (.000)	.119*** (.000)	.026 (.362)	-.026 (.362)	-.195*** (.000)	.429*** (.000)	-.361*** (.000)	-.013 (.642)
17. Return-on-assets	-.070** (.012)	-.071** (.012)	.156*** (.000)	.024 (.403)	.666*** (.000)	.062** (.029)	.059** (.037)	-.034 (.224)	.034 (.224)	.022 (.425)	.192*** (.000)	-.335*** (.000)	-.010 (.725)
18. EBITDA margin	-.071** (.011)	-.072** (.011)	-.005 (.853)	.091*** (.001)	.492*** (.000)	.046 (.101)	.021 (.456)	-.010 (.721)	.010 (.721)	-.021 (.453)	.251*** (.000)	-.358*** (.000)	-.007 (.803)

<b>Continued</b>	14	15	16	17	18
14. Relative value	1.000				
15. Ln (Market cap)	-.548*** (.000)	1.000			
16. Ln (Total assets)	-.388*** (.000)	.914*** (.000)	1.000		
17. Return-on-assets	-.376*** (.000)	.527*** (.000)	.449*** (.000)	1.000	
18. EBITDA margin	-.379*** (.000)	.604*** (.000)	.598*** (.000)	.816*** (.000)	1.000

## Appendix 5 – Univariate analysis CAR six-month estimation window

**Table 27: Univariate analysis: CAR media sell-offs (six-month estimation window)**

Overview of the cumulative abnormal returns (CAR) for the three-day event window and (-1, +1) and eleven-day event window (-5, +5), announcement is day 0. CARs received from non-focusing/focusing sell-offs are calculated for the total sample, three industry subsectors and two sample periods. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level.

	Full Sample	Non-focusing	Focusing	Difference	
	(1)	(2)	(3)	(4) = (2)-(3)	t-statistic
<i>CAR<sub>Short EW(-1,+1)</sub></i>					
Full sample	.0507*	.0747	.0184***	.0563	1.11
	N=1,266	N=726	N=540		
Period 1 (a)	.0611	.0949	.0149***	.0799	1.05
1999-2008	N=835	N=482	N=353		
Period 2 (b)	.0305***	.0348***	.0248**	.0100	.62
2009-2018	N=431	N=244	N=187		
Trad. media (c)	.0842	.1378	.0150***	.1229	.99
	N=598	N=337	N=261		
Telecom. (d)	.0132***	.0155**	.0104*	.0051	.57
	N=526	N=288	N=238		
Digital media (e)	.0482**	.0329	.0859	-.0530	-1.06
	N=142	N=101	N=41		
(a) – (b)	.0306	.0600	.0099		
t-statistic	.68	.78	.77		
(c) – (d)	.0710	.1224	.0046		
t-statistic	1.16	1.12	.58		
(c) – (e)	.0360	.1094	-.0709		
t-statistic	.55	.94	-1.36		
(d) – (e)	-.0350	-.0174	-.0754		
t-statistic	-1.52	-.71	-1.45		
<i>CAR<sub>Short EW(-5,+5)</sub></i>					
Full sample	.0512*	.0774	.0160**	.0614	1.21
	N=1,266	N=726	N=540		
Period 1 (a)	.0606	.0974	.0105	.0869	1.14
1999-2008	N=835	N=482	N=353		
Period 2 (b)	.0329***	.0378***	.0265**	.0113	.67
2009-2018	N=431	N=244	N=187		
Trad. media (c)	.0884	.1472	.0126*	.1345	1.10
	N=598	N=337	N=261		
Telecom. (d)	.0143**	.0151	.0134	.0017	.12
	N=526	N=288	N=238		
Digital media (e)	.0309	.0221	.0526	-.0305	-.59
	N=142	N=101	N=41		
(a) – (b)	.0278	.0596	.0160		
t-statistic	.62	.78	1.15		
(c) – (d)	.0741	.1320	-.0007		
t-statistic	1.21	1.22	-.06		
(c) – (e)	.0575	.1250	-.0400		
t-statistic	.88	1.13	-.77		
(d) – (e)	-.0166	-.0070	-.0393		
t-statistic	.67	-.25	-.75		

**Table 28: Univariate analysis: CAR media M&A (six-month estimation window)**

Overview of the cumulative abnormal returns (CAR) calculated by the market model for the three-day event window and (-1, +1) and eleven-day event window (-5, +5), announcement is day 0. CARs received from cross-border/domestic and focusing/conglomerate M&A are calculated for the total sample, three industry subsectors and two sample periods. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level.

	Full Sample	Domestic	Cross-border	Difference		Focusing	Conglomerate	Difference	
	(1)	(2)	(3)	(4) = (2)-(3)	t-statistic	(5)	(6)	(7) = (5)-(6)	t-statistic
<i>CAR<sub>Short EW(-1,+1)</sub></i>									
Full sample	.0160*** N=2,436	.0180*** N=1,758	.0106*** N=678	.0075	1.54	.0120*** N=1,462	.0220*** N=974	-.0100	-1.58
Period 1 (a) 1999-2008	.0137*** N=1,576	.0146*** N=1,155	.0112*** N=421	.0034	.54	.0082** N=997	.0232*** N=579	-.0150*	-1.73
Period 2 (b) 2009-2018	.0201*** N=860	.0246*** N=603	.0095** N=257	.0151**	2.03	.0200*** N=465	.0202*** N=395	-.0002	-.02
Traditional media (c)	.0113*** N=1,006	.0112*** N=742	.0117*** N=264	-.0005	-.07	.0068** N=565	.0171*** N=441	-.0104	-1.59
Telecommunication (d)	.0185*** N=731	.0227*** N=518	.0082 N=213	.0145	1.04	.0126** N=418	.0264** N=313	-.0138	-.99
Digital media (e)	.0201*** N=699	.0235*** N=498	.0117** N=201	.0118	.92	.0176*** N=479	.0255* N=220	-.0080	-.55
(a) – (b)	-.0064	-.0100	.0017			-.0118*	.0030		
t-statistic	-1.10	-1.29	.29			-1.93	.27		
(c) – (d)	-.0072	-.0115	.0035			-.0058	-.0092		
t-statistic	-1.02	-1.23	.47			-.92	-.66		
(c) – (e)	-.0088	-.0123	-.0000			-.0108	-.0084		
t-statistic	-1.34	-1.42	-.00			-1.64	-.58		
(d) – (e)	-.0016	-.0008	-.0035			-.0050	.0008		
t-statistic	-.19	-.07	-.41			-.62	.05		
<i>CAR<sub>Short EW(-5,+5)</sub></i>									
Full sample	.0142*** N=2,436	.0155*** N=1,758	.0109** N=678	.0047	.71	.0125*** N=1,462	.0168** N=974	-.0042	-.54
Period 1 (a) 1999-2008	.0079* N=1,576	.0067 N=1,155	.0113* N=421	-.0047	-.54	.0060 N=997	.0113 N=579	-.0054	-.51
Period 2 (b) 2009-2018	.0258*** N=860	.0325*** N=603	.0101* N=257	.0224**	2.17	.0267*** N=465	.0247*** N=395	.0019	.16
Traditional media (c)	.0132*** N=1,006	.0141*** N=742	.0108* N=264	.0033	.35	.0115** N=565	.0154** N=441	-.0039	-.46
Telecommunication (d)	.0183** N=731	.0227** N=518	.0075 N=213	.0152	.82	.0182* N=418	.0183 N=313	-.0001	-.01
Digital media (e)	.0115 N=699	.0102 N=498	.0145 N=201	-.0042	-.26	.0088 N=479	.0172 N=220	-.0084	-.49
(a) – (b)	-.0179**	-.0258**	.0012			-.0207**	-.0134		
t-statistic	2.31	-2.51	.14			-2.04	-1.07		
(c) – (d)	-.0051	-.0086	.0033			-.0067	-.0029		
t-statistic	-.54	-.69	.31			-.60	-.19		
(c) – (e)	.0017	.0038	-.0037			.0027	-.0019		
t-statistic	.21	.35	-.34			.28	-.11		
(d) – (e)	.0068	.0124	-.0070			.0094	.0012		
t-statistic	.61	.84	-.55			.71	.05		

## Appendix 6 – Multivariate analysis CAR six-month estimation window

**Table 29: Multivariate analysis: linear regression models media M&A (six-month estimation window)**

Dependent variable is CAR calculated over a three-day even window (-1, +1). Columns (1), (2) and (3) include basic linear regressions and columns (4), (5) and (6) include regressions with interacted explanatory variables. “Internet usage”, “cellular subscription”’s and “broadband subscriptions” measure “target country digitization” and are expected to drive CARs in cross-border M&A. “Growth (Tobin’s q)”, “SIC code overlap %” and “high-tech target” measure “operational synergy potential” and are expected to drive CARs in conglomerate M&A. Cross-border M&A, conglomerate M&A, period 1, traditional media firm and digital media firm are dummy variables. Explanatory variables are described in section 4.2.2. Control variables are described in appendix 3. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level. Constant is included in the regression models.

	<i>CAR</i> <sub>Short EW (-1,+1)</sub> six-month estimation window					
	Linear			Linear differential		
	(1)	(2)	(3)	(4)	(5)	(6)
Internet usage	-0.000 (.000)	-0.001* (.000)	-0.001* (.000)	-0.000 (.001)	-0.000 (.001)	-0.001 (.001)
Cellular subscriptions	-0.000 (.000)	-0.000* (.000)	-0.000 (.000)	-0.000 (.000)	-0.000 (.000)	-0.000 (.000)
Broadband subscriptions	.001 (.001)	.001 (.001)	.002* (.001)	.000 (.001)	.001 (.001)	.002* (.001)
Growth (Tobin's q)	-.004*** (.001)	-.003** (.001)	.001 (.003)	-.003* (.002)	-.001 (.001)	.001 (.003)
SIC code overlap %	.010 (.010)	.001 (.011)	.008 (.012)	.015* (.009)	.002 (.009)	.007 (.016)
High-tech target dummy	.002 (.007)	.009 (.008)	.005 (.009)	.000 (.009)	.009 (.009)	.006 (.013)
Cross-border M&A dummy	-.009* (.005)	-.001 (.005)	.000 (.008)	.021 (.040)	.007 (.039)	-.007 (.043)
Conglomerate M&A dummy	.017** (.008)	.012* (.007)	.003 (.008)	.025** (.011)	.018* (.010)	.003 (.011)
Period 1 (1999 – 2008)	-.005 (.009)	-.008 (.008)	.020 (.035)	-.006 (.009)	-.007 (.009)	.026 (.035)
Traditional media firm	-.005 (.008)	-.006 (.008)	.208*** (.050)	-.005 (.011)	-.005 (.010)	.198*** (.051)
Digital media firm	.010 (.009)	.001 (.008)	.035* (.020)	.010 (.008)	.001 (.008)	.036 (.023)
Cross-border M&A*Internet usage				-.001 (.001)	-.000 (.001)	.000 (.001)
Cross-border M&A*Cellular subscriptions				-.000 (.000)	.000 (.000)	.000 (.000)
Cross-border M&A*Broadband subscriptions				.000 (.000)	-.001 (.000)	-.001 (.000)
Conglomerate M&A*Growth (Tobin's q)				-.002 (.002)	-.002 (.002)	-.000 (.003)
Conglomerate M&A*SIC code overlap %				-.014 (.034)	.001 (.032)	.004 (.036)
Conglomerate M&A*High-tech target				.001 (.017)	-.002 (.016)	-.003 (.014)
Covariates	No	Yes	Yes	No	Yes	Yes
Firm fixed effects	No	No	Yes	No	No	Yes
Year fixed effects	No	No	Yes	No	No	Yes
R <sup>2</sup>	.010	.060	.775	.012	.061	.775
Observations	2235	2235	2235	2235	2235	2235

**Table 30: Multivariate analysis: non-linear regression models media M&A (six-month estimation window)**

Dependent variable is CAR calculated over a three-day even window (-1, +1). Columns (1), (2) and (3) include basic non-linear regressions and columns (4), (5) and (6) include non-linear regressions with interacted explanatory variables. All explanatory variables are divided into four quartiles, excluding high-tech target. “Internet usage”, “cellular subscriptions” and “broadband subscriptions” measure “target country digitization” and are expected to drive CARs in cross-border M&A. “Growth (Tobin’s q)”, “SIC code overlap %” and “high-tech target” measure “operational synergy potential” and are expected to drive CARs in conglomerate M&A. Cross-border M&A, conglomerate M&A, period 1, traditional media firm and digital media firm are dummy variables. Explanatory variables are described in section 4.2.2. Control variables are described in appendix 3. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level. Constant is included in the regression models.

	CAR <sub>(-1,+1)</sub> six-month estimation window					
	Non-linear			Non-linear differential		
	(1)	(2)	(3)	(4)	(5)	(6)
Internet usage Q2	-.012 (.011)	-.018 (.011)	-.013 (.012)	-.011 (.016)	-.017 (.017)	-.020 (.019)
Internet usage Q3	-.011 (.013)	-.015 (.013)	-.013 (.017)	-.007 (.019)	-.009 (.019)	-.014 (.025)
Internet usage Q4	-.002 (.015)	-.012 (.015)	-.024 (.019)	.009 (.023)	-.004 (.023)	-.027 (.027)
Cellular subscriptions Q2	-.005 (.009)	-.005 (.009)	-.006 (.012)	-.000 (.011)	-.003 (.010)	-.011 (.015)
Cellular subscriptions Q3	-.011 (.011)	-.017 (.011)	-.016 (.019)	-.006 (.013)	-.017 (.013)	-.026 (.025)
Cellular subscriptions Q4	-.008 (.013)	-.015 (.012)	-.014 (.019)	-.006 (.018)	-.020 (.018)	-.027 (.029)
Broadband subscriptions Q2	-.002 (.008)	.000 (.009)	.010 (.017)	-.003 (.012)	.003 (.012)	.019 (.024)
Broadband subscriptions Q3	.003 (.014)	.003 (.014)	.022 (.021)	-.002 (.020)	.005 (.019)	.037 (.030)
Broadband subscriptions Q4	.003 (.023)	.006 (.022)	.032 (.025)	-.004 (.032)	.007 (.031)	.047 (.035)
Growth (Tobin’s q) Q2	-.014 (.010)	-.002 (.011)	.002 (.009)	-.009 (.008)	.004 (.009)	.004 (.013)
Growth (Tobin’s q) Q3	-.019** (.008)	-.004 (.007)	.008 (.012)	-.006 (.009)	.010 (.010)	.011 (.014)
Growth (Tobin’s q) Q4	-.034*** (.009)	-.017** (.008)	-.000 (.019)	-.028*** (.010)	-.010 (.010)	-.000 (.021)
SIC code overlap % Q2	-.001 (.009)	.007 (.009)	.014 (.008)	.017 (.012)	.017 (.012)	.023 (.015)
SIC code overlap % Q3	-.001 (.011)	-.004 (.012)	.011 (.010)	.015 (.012)	.005 (.012)	.017 (.016)
SIC code overlap % Q4	.004 (.011)	.002 (.011)	.009 (.011)	.020 (.012)	.011 (.012)	.016 (.016)
High-tech target	.003 (.007)	.009 (.008)	.005 (.009)	.001 (.010)	.009 (.009)	.007 (.014)
Cross-border M&A	-.008 (.006)	-.001 (.005)	.001 (.008)	.015 (.021)	.022 (.020)	.003 (.021)
Conglomerate M&A	.013* (.007)	.012* (.007)	.004 (.009)	.041** (.018)	.036** (.018)	.019 (.018)
Period 1 (1999 – 2008)	-.003 (.011)	-.009 (.011)	.016 (.040)	-.004 (.012)	-.009 (.012)	.017 (.042)
Traditional media firm	-.006 (.008)	-.007 (.008)	.207*** (.049)	-.007 (.011)	-.007 (.010)	.200*** (.051)
Digital media firm	.010 (.009)	.001 (.008)	.022 (.021)	.011 (.009)	.001 (.009)	.026 (.022)
Internet usage Q2*Cross-border M&A				-.005 (.019)	-.002 (.020)	.020 (.025)
Internet usage Q3*Cross-border M&A				-.010 (.023)	-.018 (.023)	.001 (.031)
Internet usage Q4*Cross-border M&A				-.031 (.026)	-.021 (.027)	.007 (.033)
Cellular sub Q2*Cross-border M&A				-.025 (.017)	-.019 (.017)	.005 (.023)
Cellular sub Q3*Cross-border M&A				-.018 (.021)	-.001 (.020)	.019 (.031)

Cellular sub Q4*Cross-border M&A				-0.09	.011	.024
				(.024)	(.023)	(.034)
Broadband sub Q2*Cross-border M&A				-.005	-.015	-.025
				(.017)	(.017)	(.025)
Broadband sub Q3*Cross-border M&A				.006	-.014	-.033
				(.025)	(.025)	(.036)
Broadband sub Q4*Cross-border M&A				.010	-.012	-.031
				(.030)	(.030)	(.040)
Growth (Tobin's q) Q2*Conglomerate M&A				-.008	-.011	-.005
				(.024)	(.023)	(.018)
Growth (Tobin's q) Q3*Conglomerate M&A				-.030*	-.032**	-.009
				(.017)	(.016)	(.019)
Growth (Tobin's q) Q4*Conglomerate M&A				-.011	-.013	-.000
				(.018)	(.017)	(.019)
SIC code overlap % Q2*Conglomerate M&A				-.026	-.014	-.013
				(.018)	(.017)	(.017)
SIC code overlap % Q3*Conglomerate M&A				-.020	-.010	-.003
				(.025)	(.025)	(.034)
SIC code overlap % Q4*Conglomerate M&A				-.024	-.012	-.018
				(.035)	(.032)	(.034)
High-tech target*Conglomerate M&A				.003	-.000	-.004
				(.017)	(.016)	(.014)
Covariates	No	Yes	Yes	No	Yes	Yes
Firm fixed effects	No	No	Yes	No	No	Yes
Year fixed effects	No	No	Yes	No	No	Yes
R <sup>2</sup>	.012	.061	.776	.016	.065	.776
Observations	2235	2235	2235	2235	2235	2235

**Table 31: Multivariate analysis: linear regression models media sell-offs (six-month estimation window)**

Dependent variable is CAR calculated over a three-day even window (-1, +1). Columns (1), (2) and (3) include basic linear regressions and columns (4), (5) and (6) include regressions with interacted explanatory variables. “Interest coverage ratio”, “Growth (Tobin's q)” and “diversified parent” measure “operational synergy potential” and are expected to drive CARs in focusing sell-offs. Diversified parent, focusing sell-off, period 1, traditional media firm and digital media firm are all dummy variables. Explanatory variables are described in section 4.2.2. Control variables are explained in appendix 3. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level. Constant is included in regression model.

	CAR <sub>(-1,+1)</sub> six-month estimation window					
	Linear			Linear differential		
	(1)	(2)	(3)	(4)	(5)	(6)
Interest coverage ratio	-.011	-.009	.001	-.017	-.014	.000
	(.010)	(.010)	(.001)	(.015)	(.015)	(.001)
Growth (Tobin's q)	.021	.019	.016	.013	.008	.018
	(.020)	(.014)	(.012)	(.027)	(.023)	(.017)
Diversified parent	.045	.099	-.369***	.073	.112	-.351***
	(.104)	(.137)	(.077)	(.130)	(.151)	(.087)
Focusing sell-off	-.044	-.016	-.003	.008	-.032	.014
	(.041)	(.021)	(.007)	(.106)	(.108)	(.033)
Period 1 (1999 – 2008)	.012	.029	-.024	.004	.023	-.025
	(.037)	(.048)	(.031)	(.031)	(.043)	(.032)
Traditional media firm	.095	.086	.002	.089	.083	.001
	(.085)	(.087)	(.014)	(.079)	(.084)	(.015)
Digital media firm	-.037	-.056	.035	-.065	-.076	.034
	(.058)	(.057)	(.029)	(.086)	(.075)	(.029)
Interest coverage ratio*Focusing sell-off				.014	.012	.001
				(.015)	(.013)	(.001)
Growth (Tobin's q)*Focusing sell-off				.013	.018	-.003
				(.023)	(.024)	(.008)
Diversified parent*Focusing sell-off				-.123	-.054	-.018
				(.148)	(.116)	(.032)
Covariates	No	Yes	Yes	No	Yes	Yes
Firm fixed effects	No	No	Yes	No	No	Yes
Year fixed effects	No	No	Yes	No	No	Yes
R <sup>2</sup>	.011	.035	.991	.015	.038	.991
Observations	1266	1266	1266	1266	1266	1266

**Table 32: Multivariate analysis: non-linear regression models media sell-offs (six-month estimation window)**

Dependent variable is CAR calculated over a three-day even window (-1, +1). Columns (1), (2) and (3) include basic non-linear regressions and columns (4), (5) and (6) include non-linear regressions with interacted explanatory variables. All explanatory variables are divided into quartiles, excluding diversified parent. “Interest coverage ratio”, “Growth (Tobin’s q)” and “diversified parent” measure “operational synergy potential” and are expected to drive CARs in focusing sell-offs. Focusing sell-off, period 1, traditional media firm and digital media firm are all dummy variables. Explanatory variables are described in section 4.2.2. Control variables are explained in appendix 3. Transactions are obtained from SDC through Thomson One, financial data from Datastream. CAR calculation methodology is explained in section 4.2.1. Stars indicate \*10%, \*\*5% and \*\*\*1% statistical significance level. Constant is included in regression model.

	$CAR_{(-1,+1)}$ six-month estimation window					
	Non-Linear			Non-linear differential		
	(1)	(2)	(3)	(4)	(5)	(6)
Interest coverage ratio Q2	-.158 (.135)	-.037 (.056)	.019 (.020)	-.232 (.202)	-.112 (.122)	-.000 (.021)
Interest coverage ratio Q3	-.147 (.111)	.008 (.026)	.036 (.026)	-.220 (.181)	-.061 (.077)	.023 (.028)
Interest coverage ratio Q4	-.139 (.101)	.032 (.032)	.039 (.029)	-.199 (.156)	-.013 (.046)	.019 (.029)
Growth (Tobin’s q) Q2	-.094 (.095)	-.095 (.095)	.001 (.018)	-.168 (.181)	-.166 (.178)	.011 (.019)
Growth (Tobin’s q) Q3	-.116 (.102)	-.100 (.092)	.005 (.026)	-.188 (.178)	-.162 (.160)	.011 (.027)
Growth (Tobin’s q) Q4	-.083 (.106)	-.077 (.104)	.046 (.060)	-.152 (.185)	-.156 (.190)	.061 (.072)
Diversified parent	.028 (.086)	.079 (.118)	-.316*** (.109)	.044 (.100)	.079 (.119)	-.283** (.120)
Focusing sell-off	-.051 (.050)	-.028 (.032)	-.003 (.007)	-.212 (.264)	-.247 (.285)	-.018 (.048)
Period 1 (1999 – 2008)	.025 (.047)	.048 (.063)	-.026 (.038)	.022 (.046)	.045 (.062)	-.027 (.039)
Traditional media firm	.073 (.067)	.050 (.055)	-.017 (.023)	.073 (.067)	.052 (.057)	-.012 (.024)
Digital media firm	-.034 (.057)	-.073 (.077)	.016 (.046)	-.060 (.081)	-.094 (.096)	.026 (.041)
Interest coverage ratio Q2*Focusing sell-off				.197 (.182)	.196 (.180)	.042 (.030)
Interest coverage ratio Q3*Focusing sell-off				.170 (.165)	.154 (.151)	.027 (.021)
Interest coverage ratio Q4*Focusing sell-off				.138 (.132)	.102 (.105)	.040 (.027)
Growth (Tobin’s q) Q2*Focusing sell-off				.168 (.196)	.161 (.190)	-.023 (.020)
Growth (Tobin’s q) Q3*Focusing sell-off				.188 (.197)	.163 (.178)	-.012 (.019)
Growth (Tobin’s q) Q4*Focusing sell-off				.175 (.199)	.196 (.212)	-.024 (.033)
Diversified parent*Focusing sell-off				-.105 (.125)	-.027 (.104)	-.000 (.040)
Covariates	No	Yes	Yes	No	Yes	Yes
Firm fixed effects	No	No	Yes	No	No	Yes
Year fixed effects	No	No	Yes	No	No	Yes
$R^2$	.008	.033	.991	.011	.035	.991
Observations	1266	1266	1266	1266	1266	1266