Can business expectations predict M&A activity?

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Abstract

This research study integrates management and finance theories to develop hypotheses on the role of business expectations as a predictor of merger and acquisition (M&A) activity. Three constituencies of business expectations are identified and analysed: analyst expectations, management expectations and media expectations. The focus of this paper is merger and acquisition activity in the US and in the UK for the period 1984-2009. Time series analysis and panel data analysis are performed. For both the selected countries, the time series analysis finds that changes in analyst expectation and management expectation do predict and therefore can be assumed drive M&A activity but that the predictive power weakens after one quarter. For the UK sample, the tests also shows a positive relationship between the number of M&As related articles covered by media and deal activity, again only significant when lagged by no more than one quarter. Panel data analysis confirms time series analysis results: changes in analyst expectations and management expectations have a positive significant power in predict changes in the number of M&As when are lagged by one quarter.

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1 Introduction

Over the last decades, the topic of mergers and acquisitions (M&A) has attracted significant attention in both academic and practitioner-oriented literature. The topic is of outmost importance for the business community, for instance, in the period January 2009 to December 2009, the database Thomson One Banker shows that more than 25,000 M&As took place worldwide for a total value of $ 1,760,667mil.

Research studies on M&A activity antecedents have been developed by both management and finance literature. The studies of efficiency theories, the oldest in this vein of literature, investigate the reasons explaining the dynamics of M&A activity. These studies link M&A activity with intent by management to maximize strategic or financial corporate goals often in reaction to some external shocks (among others, Gort, 1969; Coase, 1973; Mitchell and Mulherin 1996; Andrade et al., 2001; and Harford, 2005). Another stream in the literature focuses on the self-interest that may encourage managers to pursue M&As (Roll, 1986). Behavioral theories also show that M&A activity may be connected to stock market misvaluation (Rhodes-Kropf and Viswanathan, 2004) and environmental uncertainty (Thompson, 1967; Tversky and Kahneman, 1974; Duhaime and Schwenk, 1985; and Milliken, 1987). A third stream discusses the link between M&A activity to socio-institutional pressure. Network ties research, originally developed by Granovetter (1973), finds that managers imitate the acquisition activities of firms to which they are tied through interlocking directorships (Haunschild, 1993a, 1993b). Subsequent work demonstrates that the number of current acquisitions made by firms is positively related to the number of acquisitions completed by interlock partners (Beckman and Haunschild, 1998).

The empirical literature puts forward three main distinct approaches to modelling and identifying M&A waves (Gärtner and Halbheer, 2009). First, Golbe and White (1993) identify waves by fitting a sine curve to historic merger data. Second, merger series are modeled by autoregressive processes capable of producing wave-like behavior (Shughart and Tollison, 1984; Clark, et al., 1988; Chowdhury, 1993; and Barkoulas et al., 2001). Third, merger series are modeled by means of parameter-switching models where waves in activity are caused by discrete parameter switches (Linn and Zhu, 1997; Town, 1992).

This paper contributes to extant management and finance theories by investigating the strength of business expectations as a predictor, and in effect a driver, of M&A activity. Even though previous literature have discussed the issue of behavioral drivers of M&A activity at a management or corporate level, no empirical studies have been conducted which links several business or market expectations, i.e. more macro-economic oriented factors, with deal activity. The authors of this paper suggest that managements will be greatly influenced by general business or market expectations when deciding on pursuing an M&A, and tests the hypothesis with empirical evidence.

This study focus on quarterly M&A activity in the US and the UK covering a sample period of 25 years and identifies three constituencies of expectations - analyst expectations, management expectations, and media expectations. The empirical evidence suggests that changes in analyst expectations and management expectations do anticipates changes in the number of M&A and therefore can be assumed to partly drive deal activity. The predictive power is only significant when lagged by one quarter. Additional findings suggests that there is a positive relationship between the number of M&A-related articles covered by media and the change in number of M&As in the subsequent quarter, but the results are only significant for the UK sample data.

By providing evidence that business expectations do predict and therefore drive M&A activity, this paper is an important contribution to existing literature. These findings links closely to earlier work in the behavioural finance area, by supporting herding-behaviour theories, theories relating to management overconfidence and risk appetite, as well as the increasing influential role of media in a business context. Moreover, the findings have significant practical implications. For instance, it can help financial institutions to predict the changes in the number of M&As and thus tune capacity in their M&A departments.

The remaining of this paper is structured as follows. Section 2 provides a review of the literature and formulates the hypotheses. Section 3 describes the data and methodology used in the study. Section 4 discusses the empirical results and Section 5 concludes.

2   Literature review and hypotheses setting

"The evolution of many economic variables is affected by expectations that economic agents have with respect to the future development of this variables" (Heemeijer et al., 2009). Expectations have been widely studied both in finance and management as potential antecedents of economic activity. This section discusses various management and finance theories to develop hypotheses on the role of business expectations as a driver of M&A activity.

2.1   Macroeconomic effects

A number of studies look at the relationship between M&A activity and the business cycle and/or stock market variables (Clarke and Ioannidis, 1996). M&A activity is shown to grow more rapidly during expansion and more slowly during recession. It is also shown that about a third of the aggregated merger activity can be attributed to changes in economic conditions (e.g. Nelson, 1966; Melicher et al., 1983; and Becketti, 1986). The role of the economic cycle

is also studied in terms of financing decisions. For instance, Dittmar and Dittmar (2008) show that trends in financing decisions result from differing responses to the same economic stimulus: growth in economies. Specifically, they proved that economic expansion reduces the cost of equity relative to the cost of debt, inducing firms to issue equity, and increases cash flow and also causes varying degrees of uncertainty. Under these conditions, financing becomes easier and consequently triggers increased M&A activity. Harford (2005) suggests that, during economic expansion periods, M&As firms are less financially constrained and thus have more (or possibly cheaper) sources of capital.

Gort (1969) formulates an 'economic disturbance' theory to explain the relationship between increased M&As activity and periods of rising stock prices through expectation differences between stockholders and non-stockholders argumentation. More recent studies provide support to for viewing changes in M&As activity as related to capital market conditions (Melicher et al., 1983; Clarke and Ioannidis, 1996).

These arguments lead to the following hypothesis:

Hypothesis 1 – An increase in the macroeconomic conditions (economic cycle) in a given time slot anticipates an increase in merger and acquisition activity in the following time slot.

2.2 Analyst expectation

Rhodes-Kropf and Viswanathan (2004) show that M&As can happen when managers use overvalued stocks to buy the assets of lower-valued firms. They introduce imperfect information to explain why rational managers of target firms accept the overvalued shares of acquirers arguing that these managers overestimate the gains from merger. They assert that when the market is overvalued, the target reduces the expected value of a given stock offer, and thus, the target values the offer correctly on average. However, the target is more likely

to overvalue the offer the greater the market overvaluation is, even though the target's own stock is affected by the same market overvaluation. Thus, market overvaluation may triggers M&A activity even if there is no underlying reason for M&As.

In this light, financial analysts have the power to influence investors' perception and valuation of the stock market. Financial analyst (sell-side) research, produce and disclose reports forecasting aspects of companies' future prospects and translate their forecast into stock recommendations – e.g. sell, buy, hold. Analyst expectations not only attempt to predict and influence relative stock price movements in individual stocks and industries, but also may be important contributors to the underwriting side of their investment banks, in many cases helping the investment bankers in looking for new possible opportunities. Analysts' recommendations, which attempt to forecast relative stock prices, typically are made in two ways: they anticipate changes in company fundamentals in some recommendations or they react to new news, official company news, such as earnings reports, or others. The evidence is overwhelmingly supportive of theories suggesting that analysts' announcements of changes in recommendations have significant market impacts, affecting the prices of individual stocks not just immediately but for weeks after the announcement. Most empirical research finds that, on average, the market reacts favorably to a positive change in recommendation and has a negative reaction to a drop in recommendation (Michaely and Womack, 2005). We expand upon this line of research by arguing that financial analyst (positive) expectations may make top management more prone to embark in M&As to put their companies in a more favorable position to seize the emerging opportunities. Rising (optimistic) expectations may also trigger management hubris – e.g. management may embark in M&As to "capitalize" on higher stock valuations – and management "predatory" behavior – e.g. Schleifer and Vishny (2003) argue that when a manager believes his firm to be overvalued he may tend to acquire other organizations by offering his company's shares in exchange. However, there is a

contradicting theory which instead argues that it is the sell recommendations which will have a positive effect on M&A activity. When a firm receives a sell recommendation it will automatically become a more obvious target for a takeover, with the share price being depressed as a reaction to the sell note. 'Bargain-hunter' acquirers or 'predators' will use the opportunity to pick up low valuation competitors or other strategic assets. Hold recommendation is viewed to be more neutral and therefore is not expected to have any significant relationship with M&A activity.

These arguments lead to the following hypothesis:

Hypothesis 2 – An increase in financial analyst expectations, change in number of buy notes or change in number of sell notes, in a given period anticipates an increase in merger and acquisition activity in the following period.

2.3 Management expectation

CEOs and top executives are the main decision-makers of the firm which they belong to. Their expectations about the future performance of their own firm, their main competitors and about the general economic situation impact on their decisions today. There is a stream in the literature that connects M&A activity to high levels of environmental uncertainty: managers faced with the fear of an uncertain future will deem significant strategic options (and ultimately changes) to be too complex or beyond their control and feeling they are unable to predict the impact of the environment on their organization, and/or "response uncertainty," (Thompson, 1967; Milliken, 1987), consider M&As as quick and easy solutions (March and Simon, 1958; Tversky and Kahneman, 1974; Duhaime and Schwenk, 1985; and Jemison and Sitkin, 1986a, 1986b; Auster, and Sirower 2002).

The hubris hypothesis posits that managers may make mistakes in valuating targets and engage in acquisitions even when no synergy exists. According to Roll (1986), managers of bidding firms may overpay for targets because they overestimate their own ability to run the acquired firms. March and Shapira (1987) examine corporate managers' perspectives on taking risk. They show that optimistic and/or overconfident managers may overestimate the probability of success and underestimate the risk of a decision. Similarly, Goel and Thakor (2002) suggest that overconfident managers are more likely to take on riskier decisions because they underestimate the level of risk they are taking. Furthermore, Gervais et al. (2002) posit that optimistic managers believe that the expected net present value of potential projects is greater than it actually is. Thus, overconfident managements are more likely to conduct mergers, because they overvalue the target firm's assets and overestimate the returns from potential synergies (Malmendier and Tate, 2002). Gervais et al. also show that optimistic and overconfident managers are more likely to undertake a project more quickly.

Network ties research, originally developed by Granovetter (1973), finds that managers imitated the acquisition activities of firms to which they are tied through interlocking directorships (Haunschild, 1993a, 1993b). Subsequent work demonstrates that the number of current acquisitions made by firms is positively related to the number of acquisitions completed by interlock partners (Beckman and Haunschild, 1998). Seidel et al. (2001) find that changes in the acquisition activity of "tied-to" firms have significant positive effects on changes in focal firm acquisition activity. This research identifies managers' desires to achieve peer isomorphism as an important antecedent of acquisitions.

In this light, an increase in management expectations will signal an increased level of confidence amongst managers which can lead to a higher propensity to engage in significant, and sometimes highly risky, corporate activities, e.g. M&A. This argument leads to the following hypothesis:

Hypothesis 3 – An increase in management expectations in a given time slot anticipates an increase in merger and acquisition activity in the following time slot.

2.4 Media expectation

The role of media in managerial context can be investigated in terms of institutional pressure and imitative behaviors that media can make arise among firms. For instance, media can transmit information to the diffusion and legitimization of management ideas and practices (Mazza and Alvarez, 2000). The high importance of popular media coverage is also associated to the influence on politics, economy and business of trend-setters in fashion fields (Suzuki and Best, 2003). Media are widely considered as capable of influencing decision makers (Abrahamson, 1996; Carson et al., 2000; Spell, 2001). However, only a small fraction of the existing research on popular management knowledge seems to be directed towards the investigation of the role of the media in the diffusion and legitimization of management ideas and practices (Mazza and Alvarez, 2000) – e.g. M&As.

First, media is an important tool for the constitution and reconstitution of organizational change, of which mergers and acquisitions are an example (Vaara and Tienari, 2002). Although the decision to merge is carried out by the owners and top executives of companies, merging is performed in a wider social and societal context (Hellgren et al., 2002) where multiple interpretations are possible. From a managerial point of view, it is important how the merger or acquisition is being portrayed in the media. In fact, if media reports and reproduces the managers' thoughts concerning a need for industrial restructuring and a demand for creation of competitive strength, this may easily convinces the reader of the necessity of the merger and cause an increasing pressure on owners and top executives of companies according to institutional theories (Davis and Stout, 1992; Thornton; 1995). In this context, the media can be seen as both a sense-maker and a sense-giver (Gioia and

Chittipeddi 1991; Weick, 1995) for M&A activity. The media is a sense-maker in that it takes part in developing a meaningful framework for understanding complex phenomena such as M&As. The media is a sense-giver in that it also attempts to influence sense-making and meaning construction among its audiences toward specific definitions of reality (Hellgren et al., 2002). These considerations allow some scholars to investigate the emergence of winners and losers as being describing by media (Hellgren et al., 2002) and clearly managers tend to prefer to be enlisted within the winner lists. In other words, following Rajan and Pangarkar (2000), media may trigger a bandwagon whereby firms tend to imitate their rivals regardless of whether such imitation enhances the value of their companies. In other words, highly visible success stories broadcasting early positive results, combined with fashion setters and supporting techniques may reinforce the perceived benefits of engaging in M&As.

Second, media coverage may also capture executive future intentions – even "gossips" - about future business activities. Indeed, rumors and talks about future business actions are often one of the key areas of media attention (Hellgren et al.,2002), including business media.

It is therefore reasonable to assume that the press coverage on M&A, which it is named in this paper 'media expectations', will anticipate changes in M&A activity in a subsequent period. This arguments lead to the following hypothesis:

Hypothesis 4 – An increase in media coverage on merger and acquisition (media expectations) in a given time slot anticipates an increase in merger and acquisition activity in the following time slot.

3   Data and Methodology

3.1   *Data*

3.1.1 M&A data

Following the majority of previous empirical studies (particularly, Melicher et al., 1983; Clarke and Ioannidis, 1996; and Martynova and Renneboog, 2008), the number of transactions per unit of time, measured as quarters in this paper, is used as the measure of M&A activity. M&A data are collected from SDC Platinum database. The sample contains all mergers and acquisitions announced between January 1, 1984 and December 31, 2009. Following Rossi and Volpin (2004), the transactions selected are only those where the acquirer owns less that 50% of the target company's stock before the deal and more than 50% after the deal.

The sample also includes leveraged buy-outs, tender offers and spinoffs. These types of transactions are supposed to be influenced by the same kind of expectations as M&A. The country of the deals is classified from the acquirers' perspective. This choice is motivated by the consideration that acquirers are, in the most of the cases, the most active part and the players which are expected to be more expectations-driven.

3.1.2 Expectation data

Analyst expectations are measured as quarterly number of *buy or sell* recommendations in each country selected as reported by Bloomberg. Quarterly data from Datastream on levels of the CEO Confidence Index for the US and the UK Purchasing Managers Index for the UK provides the measures of the Management expectation. Media expectations are calculated as the number of occurrences of the M&A/Take-over/Spin-off topic-articles covered by media reported by FACTIVA database. The query includes: publications (both, scholarly and non-scholarly ones), news (from all different sources, such as, business newspapers, popular newspapers, and web). The economic cycle is captured via the Morgan Stanley Capital

International Index (MSCI) which is based on a portfolio of stocks for each country. Figures 1-2 show the data on M&A activity and business expectations in the US and in the UK.

3.2 Methodology

3.2.1 Variables and statistical tests

This paper investigates the relationship between business expectations and M&A activity first following a time series approach, and second, involving a panel data analysis.

In the analyses, data are treated as time series and the models are estimated by using Ordinary Least Squares (OLS) methods (robust regression). The quarterly change in the number of M&As is considered the dependent variable. The quarter on quarter changes in analyst expectation, management expectation, media expectation and in the economic cycle are the independent variables of the model. In order to test the predictive power of expectation, all the dependent variables are lagged by one to four quarters. All variables are found to be significant predictors when lagged by one quarter, but when the number of lags increase the relationship weakens. Table 5 shows results of the time series regression analyses. The first column (1) shows the results for the UK and the second column (2) shows the results for the US.

Examination of the data plot of each time series and the result of the Phillips-Perron test for a unit root indicates that each series are autocorrelated (Tables 1-2). According to Clarke and Ioannidis (1996), to stabilize the variance for each series and to obtain uncorrelated series, modeling the first differences of the logarithmically transformed data is equivalent to modeling percentage changes. In this study, the number of M&As as well as all the variables representative of business expectations are operationalized as quarter on quarter percentage changes. One exception is the measurement of the economic cycle variable for the US, which

is defined by a dummy variable equals to one if there is increasing positive trend in this index and equals to zero otherwise. To assess the relationships among the series included into the model, the correlation between the variables is studied. Tables 3-4 report the cross-correlations matrix for all variables included in the analyses.

In order to run the panel data analysis, the Hausman test of whether a fixed or random effects specification is appropriate is performed. Test results show that a random effects approach is the one correct.

4 Results

4.1 Business expectation and subsequent M&A activity

As expected, the economic cycle variable is significant (p-value < 0.1 in model (1) and (2)) and has a positive impact on changes in M&A activity in the US and in the UK. Hypothesis 1 is supported.

The results table shows that analyst expectation has a positive coefficient in model (1) and (2) and that these coefficients are significant (P-value <0.01 and 0.05 respectively). The results shown in the table is using the quarterly change in the number of sell recommendations. Model estimations show that a positive increase in this variable anticipates an increase in number of M&A in the following quarter. In other words, more sell recommendations predict higher number of M&As. At the first sight this may look puzzling. Past literature shows a positive relation between positive increase in number of buys and an increase in optimisms. The following points should be noted to interpret this result. On the market side, an increase in the number of sells may mean that analysts are reconsidering the value of some stock prices – which may be, for instance, overvalued. After the market has factored in these expectations, M&A activity may rise for the presence of "cheaper" prices. Furthermore, on

the company side, analysts' bad expectations about the future condition of their companies, may lead to subsequent M&A activity to boost company profitability or to sell before it is too late (Schleifer and Vishny, 2003). Last, it must be noted that the variable should be considered, jointly, with the other variables entered in the model. In this light, this variable explains additional variance on top of economic cycle which, as expected, shows a positive relationship with increase in number of M&As. These considerations lead to affirm that Hypothesis 2 is supported.

Management expectations have a positive relationship with the change in of M&A activity. The variable significance in model (1) and (2) (P-value < 0.05) is a clear indication that this measure has great impact since they are the few individuals who make the decision. The existing literature has then elaborated on why management expectations may lead to increased economic activity. For instance, more optimistic managements increase corporate investment, use more debt financing, conduct more M&As, take firms public, and start more new businesses. Conversely, pessimistic managements spend less on capital projects, conduct less merger activity and focus on cost cutting rather than expansion. Goel and Thakor (2002) suggest that overconfident managers are more likely to take on riskier decisions because they underestimate the level of risk they are taking. Since the optimistic managers overestimate the chance of a good performance, they have a tendency to take on more capital budgeting projects (Heaton, 2002). Gervais et al. (2002) posit that optimistic managers will believe that the expected net present value of potential projects is greater than it actually is. Our hypothesis and results here adds to this literature by showing that positive management expectations anticipate a surge in M&A activity. We also argue that this result can be further explained within structural equivalence theory. Burt (1982) and Hedstrom and Swedberg (1998) claim that actors' behavior is based on the set of "linkages", not necessarily ties existing among each others. Burt (1982) argues: "two people identically positioned in the

flow of influential communication will use each other as a frame of reference for subjective judgments and so make similar judgments even if they have no direct communication with each other". It follows that management closely follow other management teams actions and expectations to build their own impression and expectation on the future economic outlook. Following these considerations, hypothesis 3 is supported.

Media expectations have significant statistical power to anticipate changes in M&A activity only in the UK (positive coefficient and P-value < 0.1). This result gives support to the claim that the mass media play an important role in the legitimization of management ideas and practices (Mazza and Alvarez, 2000). The significance of this variable is fairly weak. It must be noted that it captures the frequency of M&A topic-articles in an undifferentiated way – e.g. it does not distinguish whether the news are positive or negative around M&As. In other words, the variable may also capture phases in which M&A are popular but also associated with outputs that may be not socially acceptable – e.g. layoffs. In this light, decision makers may not want to be associated with this negative hype and may decide to postpone/block merger and acquisition activity. The dis- homogeneity of the results for the US and the UK may be due to the variable operationalization. Hypothesis 4 is partially supported.

Table 6 shows results of the panel data regression analysis. This approach gives support to the time series analysis, confirming the results. Changes in analyst expectations and management expectations have a positive impact on the changes in the number of M&As when are lagged by one quarter (P-value < 0.05 and < 0.01 respectively). Media expectations do not have any significant impact on M&A activity. The table confirms the role of the economic cycle in determining changes in M&A activity (P-value = 0.01)

5 Conclusions

This paper integrates management and finance theories – particularly from institutional theory and behavioral finance – to develop hypotheses on the role of business expectations as drivers and predictors of M&A activity. In the extant literature, the themes of expectations on one side, and of M&A activity on the other side, are widely covered. There are far less studies and evidence of the relationship between them. This study identifies three constituencies of expectations – analyst expectations, management expectations and media expectations - and finds that overall business expectations do predict and therefore can be viewed as drivers of M&A activity. In particular, analyst expectations and management expectation have a strong predictive power. The results of this study supports several existing theories, particularly in the behavioral finance field, which discusses issues like herding-behavior, management overconfidence and the increasingly important role of business media as an influential factor when considering transforming business decisions.

As it is often the case with empirical research, some data collection constrains were experienced. Specifically, data collection proved to be particularly challenging for analyst expectations before 1997 (US and UK) and management expectations before 2001 (UK). In interpreting the results, it must be noted that the availability and quality of the data might be better in the US because of the broader SDC coverage. A related concern is that the coverage improves over time. Some of these limitations could be addressed by exploring other databases not considered in this research. Future research may also consider: different proxy for M&A waves - e.g. total value, weighted average value, market capitalization, M&A waves broken down at the industry-level; change in regulation and consider time period lengths (e.g. years or months).

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Number of M&As;
Management expectations;
Economi cycle

Analyst expectations;
Media expectations

Figure 1: Number of M&As and business expectations (US)

Number of M&As;
Analyst expectations
Management expectations;
Economic cycle

Media expectations

Number of M&As — Analyst expectations — Management expectations — Economic cycle — Media expectations
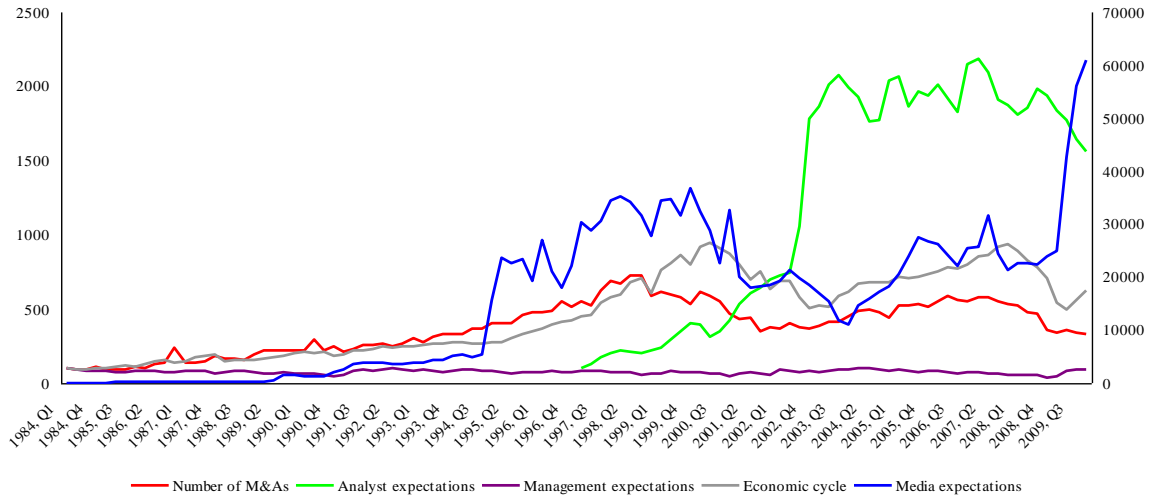
Figure 2: Number of M&As and business expectations (UK)

Number of M&As;
Management expectations;
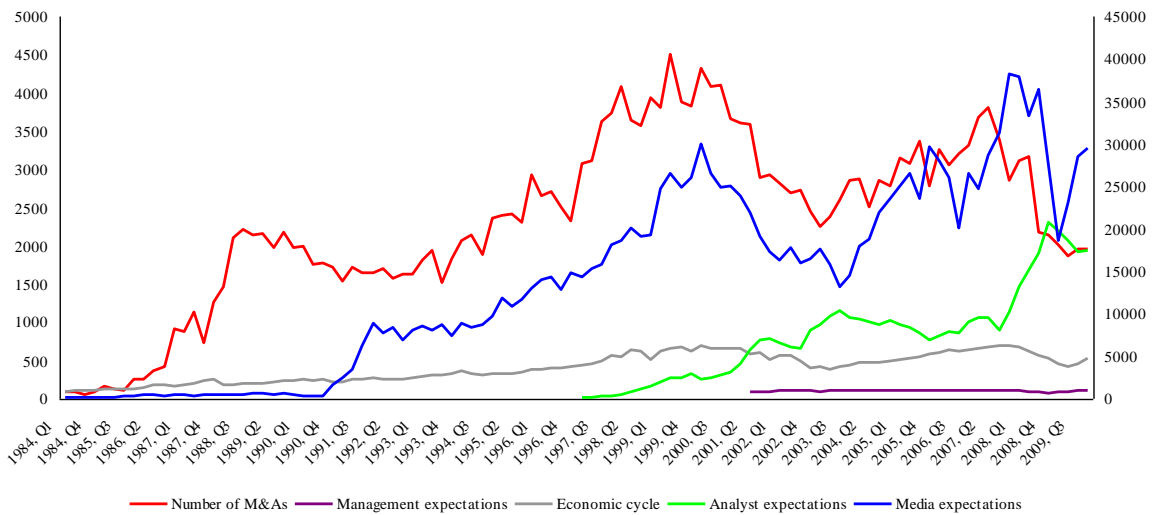Economic cycle

Analyst expectations;
Media expectations

Number of M&As — Management expectations — Economic cycle — Analyst expectations — Media expectations

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Table 1: Phillips-Perron test for unit roots

	Value	1% Critical Value	5% Critical Value	10% Critical Value
Phillips-Perron test for unit roots (USA)				
Number of M&As	-1.553 [0.5070]	-3.573	-2.926	-2.598
Analyst expectations	-1.424 [0.5708]	-3.579	-2.929	-2.6
Management expectations	-2.940 [0.0409]	-3.573	-2.926	-2.598
Media expectations	-0.552 [0.8815]	-3.573	-2.926	-2.598
Economic cycle	-2.413 [0.1380]	-3.573	-2.926	-2.598
Change in Number of M&As	-7.761 [<0.0001]	-3.574	-2.927	-2.598
Change in Analyst expectations	-4.131 [<0.0001]	-3.58	-2.93	-2.6
Change in Management expectations	-7.628 [<0.0001]	-3.573	-2.926	-2.598
Change in Media expectations	-7.293 [<0.0001]	-3.573	-2.926	-2.598
Economic cycle	nm	nm	nm	nm

P-value in parenthesis.

Table 2: Phillips-Perron test for unit roots

	Value	1% Critical Value	5% Critical Value	10% Critical Value
Phillips-Perron test for unit roots (UK)				
Number of M&As	-2.112 [0.2395]	-3.655	-2.961	-2.613
Analyst expectations	-0.842 [0.8066]	-3.655	-2.961	-2.613
Management expectations	-2.320 [0.1655]	-3.689	-2.975	-2.619
Media expectations	-1.965 [0.3022]	-3.655	-2.961	-2.613
Economic cycle	-2.009 [0.2826]	-3.655	-2.961	-2.613
Change in Number of M&As	-6.818 [<0.0001]	-3.662	-2.964	-2.614
Change in Analyst expectations	-3.796 [0.0029]	-3.662	-2.964	-2.614
Change in Management expectations	-3.997 [0.0014]	-3.696	-2.978	-2.62
Change in Media expectations	-6.264 [<0.0001]	-3.655	-2.961	-2.613
Economic cycle	-9.565 [<0.0001]	-3.509	-2.890	-2.580

P-value in parenthesis.

Table 3: Cross-correlation matrix

	Change in the Number of M&As	Change in Analyst expectations	Change in Management expectations	Change in Media expectations	Change in the Economic cycle
	Cross-correlation matrix (USA)				
Change in the Number of M&As	1				
	[<0.0001]				
Change in Analyst expectations	0.202	1			
	[0.1586]	[<0.0001]			
Change in Management expectations	0.223	0.044	1		
	[0.1019]	[0.7603]	[<0.0001]		
Change in Media expectations	-0.004	-0.121	0.128	1	
	[0.9782]	[0.4025]	[0.3509]	[<0.0001]	
Change in the Economic cycle	0.306	-0.262	-0.201	-0.019	1
	[0.0229]	[0.0663]	[0.1422]	[0.8915]	[<0.0001]

P-value in parenthesis.

Table 4: Cross-correlation matrix

	Cross-correlation matrix (UK)				
	Change in the Number of M&As	Change in Analyst expectations	Change in Management expectations	Change in Media expectations	Change in the Economic cycle
Change in the Number of M&As	1 [<0.0001]				
Change in Analyst expectations	-0.098 [0.5569]	1 [<0.0001]			
Change in Management expectations	0.259 [0.1454]	-0.420 [0.0149]	1 [<0.0001]		
Change in Media expectations	0.302 [0.0614]	-0.174 [0.2958]	-0.045 [0.8053]	1 [<0.0001]	
Change in the Economic cycle	0.263 [0.1061]	-0.406 [0.0114]	0.170 [0.3455]	0.353 [0.0277]	1 [<0.0001]

P-value in parenthesis.

Table 5: Time series regression analysis – Determinants of M&As activity

	(1) - USA	(2) - UK
Intercept	-0.077	-0.378
	[0.007]	[0.047]
Change in Analyst expectations	0.184	0.274
	[0.004]	[0.042]
Change in Management expectations	0.126	0.546
	[0.026]	[0.032]
Change in Media expectations	0.017	0.18
	[0.731]	[0.082]
Change in the Economic cycle	0.085	0.359
	[0.005]	[0.056]
R^2	0.266	0.261
F-Ratio	4.12	3.06
DW statistics	2.305	2.356
Sample size	50	33

	(1) - UK	(2) - USA
Intercept	-0.378	-0.077
	[0.047]	[0.007]
Change in Analyst expectations	0.274	0.184
	[0.042]	[0.004]
Change in Management expectations	0.546	0.126
	[0.032]	[0.026]
Change in Media expectations	0.18	0.017
	[0.082]	[0.731]
Change in the Economic cycle	0.359	0.085
	[0.056]	[0.005]
R^2	0.261	0.266
F-Ratio	3.06	4.12
DW statistics	2.356	2.305
Sample size	33	50

OLS regression models (robust estimations) are used to predict whether changes in business expectations lagged by 1 quarter can be used to predict changes in the Number of M&As. Analyst expectation is measured as quarterly number of sell recommendations in each country selected as reported by Bloomberg. Quarterly data from Datastream database of the UK Purchasing Managers Index for the UK and on the basis of the CEO Confidence Index for the US provides the measures of the Management expectation. Media expectations are calculated as the number of occurrences of the M&A topic-articles covered by media reported by FACTIVA database. The query includes: publications (both, scholarly and non-scholarly ones), news (from all different sources, such as, business newspapers, popular newspapers, and web). The economic cycle is captured via the Morgan Stanley Capital International Index (MSCI) which is based on a portfolio of stocks for each country. P-value in parenthesis.

Table 6: Panel data regression analysis – Determinants of M&As activity

	(3) - ALL
Intercept	-0.062
	[0.001]
Change in Analyst expectations	0.190
	[0.008]
Change in Management expectations	0.130
	[0.029]
Change in Media expectations	0.044
	[0.438]
Change in the Economic cycle	0.068
	[0.001]
Sample size	83

Panel data random effects regression analysis. P-value in parenthesis.