# A CRITICAL REVIEW OF NEOCLASSICAL AND BEHAVIOURAL THEORIES OF MERGER WAVES<sup>1</sup>

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#### **Abstract**

This paper aims to identify and critically evaluate the theoretical explanations of mergers happening in clusters. We identified two streams of theories: neoclassical and behavioural explanations of merger waves. Neoclassical theories include q theory and industry shock hypothesis. Behavioural theories studied incorporate share misvaluation theory, managerial hubris hypothesis, and managerial discretion theory. Q theory states that efficient firms take over inefficient firms during market expansions. Industry shock hypothesis views resource reallocation requirements due to economic, technological, or regulatory shocks as causes of merger waves. Neoclassical theories, hypothesizing gain from mergers, assumes that markets are efficient, and managers maximize shareholder wealth. Share mis-valuation theory suggests that mergers waves occur when managers of overvalued firms use overvalued stocks to takeover undervalued targets in inefficient markets. Managerial hubris hypothesis, assuming of strong market efficiency, attributes merger waves to overconfidence of irrational managers about estimated gain from acquisition. Managerial discretion theory, more relevant for conglomerate merger, attributes merger waves as results of managerial empire building. We conclude that both the streams of

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theories should co-exist unless a new theory incorporating the strengths of the two has emerged.

**Keywords**: mergers and acquisitions, restructuring, economic theories of finance, behavioural finance theories

JEL Classification: G34; G40

#### 1. Introduction

Mergers refer to amalgamating two organizations into a single entity while acquisitions involve purchase by one entity who gains subsequent control over the organization acquired (Schraeder and Self, 2003). Mergers and acquisitions have long been used for reallocation of resources within and among industries. It is an interesting phenomenon that mergers occur in waves (Neuhauser, 2007; Brealey and Myers, 2003). Such waves occurred in 1900, 1920's, 1960's, 1980's, and 1990's (Jovanovic and Rousseau, 2002). Neuhauser (2007) identified six merger waves in the twentieth century while Harford (2005) identified 35 merger waves between 1981 and 2000 with average 34 mergers occurring during each wave. Hsu et al. (2017) identified a merger wave in the U.S. upstream oil and gas industry in the second decade of the twenty-first century. Research indicate that such waves are not merely impressions but can be proven through analysis of pertinent data (Golbe and White, 1993). Quite surprisingly, the six major merger waves mentioned by Neuhauser (2007) coincided with stock market booms though the share prices stumbled as soon as the waves were over. Though firms have been exercising M&As for centuries, and academicians are researching on factors affecting mergers for long, considerable debate remain on whether economic or behavioural considerations cause the merger waves. This paper aims to identify through an extensive review of literature the theoretical explanations of mergers happening in waves. Moreover, we aim to present critical analysis of the limitations of each of the identified theories of merger waves.

Proponents of neoclassical and behavioural theories of mergers attribute different reasons for mergers coming in waves. Neoclassical theorists, who believe markets to be efficient, managers to be working for wealth maximization of firms, and mergers to create positive abnormal returns, proposed and supported q theory of merger (Jovanovic and Rousseau, 2002) and industry shock hypothesis

(Harford, 2005; Mitchell and Mulherin,1996). Researchers supporting behavioural theories suggest waves to be created due to mis-valuation of firms (e.g., Shleifer and Vishny, 2003; Rhodes-Kropf and Viswanathan, 2004), or managerial overconfidence in their capacity to predict gains from mergers (Roll, 1986), or managerial empire building (Jensen, 1986; Gugler et al., 2012).

Neoclassical theories make some significant assumptions which are not unanimously accepted. According to Jovanovic and Rousseau (2002), q theory predicts that managers of high q firms (firms with high market to book value ratio) acquire low q firms instead of purchasing used capital assets to create positive return when dispersion of q of firms increases after any shock. Industry shocks require reallocation of resources and according to industry shock hypothesis, such reallocation occur through merger waves if shocks coincide with higher liquidity (Harford, 2005). Q theory is criticized for not considering option to acquire new capital asset, and not being able to explain conglomerate mergers. Industry shock hypothesis might not be quite pragmatic due to high reliance on rare coincidence. Under this hypothesis, merger waves are explained more by liquidity than by industry shocks.

Some behavioural theorists rule out market efficiency. Misvaluation hypothesis proposes that managers of overvalued firms want to use stocks to acquire undervalued firms (Shleifer and Vishny, 2003; Rhodes-Kropf and Viswanathan, 2004). Managerial hubris hypothesis (Roll, 1986) on the other hand assumes market are efficient; but they assume managers to be overconfident about their estimation of positive return from mergers. Managerial discretion theory (Jensen, 1986; Gugler et al., 2012) assumes that merger waves are caused due to intent of top management to build empires and get higher compensation. But in the significant presence of compensation plans tied to long run performance of corporations, and existence of strong corporate governance mechanisms, we think that merger waves are unlikely to occur solely for agency-related issues.

As existence of over and undervaluation is not sufficient to disprove Efficient Market Hypothesis (Fama, 1998), and latest empirical studies (e.g., Sonenshine, 2019; Hsu et al., 2017) report coexisting significance of both neoclassical and behavioural aspects in merger waves, we think that neither the neoclassical explanation nor the behavioural explanation of merger waves can be ruled out. Neoclassical theories are good starting points for analysis of merger

waves but as decisions in financial markets are taken by homosapiens, some behavioural aspects have significant influence as well.

To the best of our knowledge, this is one of the very pioneering attempts to encapsulate and more importantly critically evaluate the theories of merger waves. This paper draws attention to the scientific world and the practitioners that both the streams of explanations of merger waves, one attempting to establish economic relevance and rationale merger waves and the other claiming behavioural aspects of homo-sapiens managing firms to trigger merger waves, have their strengths and limitations. We try to show that none of the theories discussed are alone sufficient to explain all the mergers or all the merger waves. We also draw attention of the academic arena to the need for developing a theory of merger wave that can explain both the behavioural and economic aspects of mergers.

Rest of the paper has been arranged as follows: section two outlines the research method, section three reviews the neoclassical and behavioural theories; section four critically analyses the presumptions of the two streams of theories with the help of extant literature and empirical evidence; and finally, section five concludes the paper.

### 2. Research Methodology

This study adopts a research method like literature reviews, 31 research articles, 2 book chapters, and 1 conference proceeding published between 1969 and 2021 were reviewed for identifying and critically analyzing the theories of merger waves. At the first phase, keywords were identified to help find relevant research items. Literature identification process comprised of two phases. The first search was made in "Google Scholar" using the keywords "Theories of Merger Waves" and "Merger Wave". In the first phase, 20 papers, 1 conference proceeding, and 1 book chapter were identified for final review. After reviewing the papers identified in the first phase, the second phase of the article identification was initiated. At this phase, deep searches were conducted in JSTOR and EBSCO alongside Google scholar using keywords specific to different theories of merger waves. Searches were conducted through permutation of the keywords using Boolean algebra. The keywords "Neoclassical Theories" OR "Behavioral Theories" OR "Q Theory" OR "Industry Shock Theory" OR "Mis-valuation Theory" OR "Managerial Hubris Theory" OR

"Managerial Discretion Theory" were used to identify the specific theories or stream of theories while another keyword "Merger Wave" was added using the Boolean operator AND to make the searches more specific. At this stage, 11 research papers and 1 book chapter was identified for inclusion. The papers or book chapters had to be published in English to be considered for inclusion. Number of citations of the research item along with the quality of the journal has been considered while selecting research papers. All the journals are double blind peer reviewed while all the book chapters are highly cited in the google scholar. Most of the journals belong to the first quartile (Q1) in SCIMAGO journal ranking. Considering the maturity of the topic, we acknowledge that most of the research works were published quite early. Only 13 of the 35 research items were published after 2010.

# 3. Economic and behavioural explanation of merger waves

Considerable debate remains as of whether merger waves emanate from neoclassical economic precedents or from behavioural aspects in stock markets or of managers (Gugler et al., 2012). Neoclassical school of thought has been supported by Gort (1969), Mitcell and Mulherin (1996), Jovanovic and Rousseau (2002), Harford (2005) etc. while Shleifer and Vishny (2003), Rhodes-Kropf and Viswanathan (2004), Komlenovic et al. (2011), Malmendier and Tate (2015), Mueller (1969), etc. can be named as research supporting behavioural school of thought. The two schools differ significantly in opinion regarding cause of waves, methods of payment in mergers, and impact of merger on performance (Harford, 2005).

Gugler et al. (2012) identified Industry Shock Hypothesis and the q-Theory of Merger as two dominant neoclassical theories used to identify merger waves. While the q-theory was used by Jovanovic and Rousseau (2002) to explain merger waves, Harford (2005) can be identified as making the strongest claim in favour of the statement that several industries experiencing technological, or regulatory shock at a time lead to waves of merger when there is high liquidity. Overvalued Share Hypothesis (Shleifer and Vishny, 2003) has been traced as a major theory explaining impact of behavioural issues on creating merger waves.

### 3.1. The Neoclassical School of Thought

The neoclassical theories of mergers, as stated by Gugler et al. (2012), are based on three assumptions, namely i) mergers have positive synergy effect; ii) managers focus on maximizing wealth of shareholders; and iii) market efficiency holds. This stream of research, according to Xu (2017), started with Gort (1969), who developed a model to find impact of technological change on frequency of merger incidences. Sonenshine (2019) termed the neoclassical stream of theories as structural hypothesis.

- **3.1.1. The q-theory of merger**: q being the market value over the replacement cost, the q-theory of investment states that expansion of capital investment occurs when return on capital employed exceeds the cost of capital (Gugler et al., 2012). This hypothesis is concerned more about how resource is redistributed through takeovers (Dong et al., 2006). Jovanovic and Rousseau (2002) uses the theory to explain merger waves. They treat technological efficiency as the main driving factor behind higher q of entities and state that entities with high technological capacities invest more in the form of buying bundled and unbundled capital assets when there is boom in stock market. While the companies with highest technological abilities (z), i.e., companies with higher q, acquire other firms, those with little lower z buys capital assets. The firms with lowest technological efficiency having lowest q exit or get acquired by high q firms. Managers find acquiring other firms more lucrative than buying capital assets even when they are concerned of empire building. Cash surplus makes manager invest even more in acquiring other firms. Jovanovic and Rousseau (2002) termed all the major merger waves except the wave of 1960 as reallocation waves and concluded that merger waves occurred due to high dispersion in q emanating from difference in technological efficiency (z).
- 3.1.2. Industry Shock Hypothesis: Harford (2005), based on analysis of mergers between 1981 and 2000, identifies 35 merger waves in 28 industries. He finds that merger waves occur when large scale reallocation of resources is required. Such requirement is normally caused by economic, technological, or regulatory shocks (Gort, 1969; Mitchell and Mulherin, 1996; Jovanovic and Rousseau, 2002). Ovtchinnikov (2013) states that deregulation gives struggling firms an exit by being acquired as deregulation typically relaxes exit barriers. Changing price of materials and products has been attributed by many researchers (e.g., Sonenshine, 2019; Hsu et al., 2017) as an

economic shock triggering merger wave. Sonenshine (2019) states that regulatory shocks may trigger economic shocks by affecting price and thereafter stimulating merger waves. Harford (2005) finds that shocks result it reallocation only if they are accompanied by lower transaction cost, and higher liquidity. Unlike behavioural theorist, he finds that use of cash in acquisition increases during merger waves. Though behavioural theorists find pre-wave dispersion of returns to firms to be high, Harford (2005) does not find so. He also finds that operating performance of merged entities stays like those of the unmerged ones in worst cases and improves on an average.

3.1.3. Tobin's q and Gain from Mergers: While behavioural theories believes that mergers are not value creating, neoclassical theories thinks that mergers create value and improve operating performance if executed properly (Lang et al., 1989; Servaes, 1991; Harford, 2005). Both Lang et al. (1989) and Servaes (1991) finds that Tobin's q ratios of bidder and targets largely determine the gain from the merger. Where higher q has been used as proxy for managerial performance, if bidders with higher q acquires a lower q target, the merger results in gain. Negative abnormal return can result if bidders have a lower q while the target has a higher q. Servaes (1991) in fact tested the claims of Lang et al. (1989) using data about 704 takeovers between 1972 and 1987. His study, even being more robust, supports the claim by Lang et al. (1989) that dispersion of q is a significant factor determining gain from mergers.

### 3.2. The Behavioural Finance School of Thought

The behavioural theories on mergers and acquisitions suggest mis-valuation of companies within a market to be a driver of merger waves (Shleifer and Vishny, 2003; Rhodes-Kropf and Viswanathan, 2004). Roll (1986) discuss mergers decisions made by manager's overconfidence. Agency theory-based perception of merger waves, motivated by the phenomenal work of Jensen (1986) conclude mergers to be stimulated by empire-building motive of managers.

**3.2.1.** Mis-valuation in inefficient markets: Shleifer and Vishny (2003) discusses market mis-valuations of merging firms. Their theory suggests that when firms are valued incorrectly, rational managers will be able to take advantage of the inefficient market and potentially use mergers as arbitrage opportunities. Shleifer and Vishny (2003) assume that managers are well informed and will have knowledge of any incorrect valuations made on either company's

stocks. When a company's shares are overvalued, this will put them in a position to acquire an undervalued company, and use the assets gained here to prevent their shareholders from losing equity once the market discovers that the shares have been overvalued and these prices adjust accordingly. They believe that this contributes to mergers waves when a market has many overvalued and undervalued companies as undervalued companies will become targets for the overvalued firms to level out mispricing.

Rhodes-Kropf and Viswanathan (2004) show from their discussion that merger waves can result from mis-valuation problems alone. However, they do also recognise that there are other reasons which could explain these waves. They investigate why a target company might agree to mergers if they know the acquiring company's stock is overvalued. They believe that managers, even when behaving rationally, can make errors due to the market mispricing they are presented with. As a result of the overvaluation in the market, target companies overestimate the synergies expected from the merger, and despite knowing of their own mis-valuation, agree to merge based on these perceived synergies. They believe that target managers would not agree to a stock merger if it were not expected to benefit from an increase in value.

3.2.2. Management overconfidence in decision making: Roll (1986) proposes the 'hubris hypothesis' which suggests that when making takeover bids, managers can be overconfident when it comes to trusting their own valuation of potential benefits. He considers managers to behave irrationally when making bids, ignoring any likely errors in their valuations. Hubris is given as an explanation as to why managers do not abandon takeover bids where no gain is likely to be made. The hubris hypothesis is based on the expectation of markets being strong-form efficient, where the asset prices are fully reflecting of all available information regarding the companies involved in the takeovers. This is the opposite of what other authors including Shleifer and Vishny (2003) and Rhodes-Kropf and Viswanathan (2004) have argued when they consider markets to be inefficient.

**3.2.3.** Managerial Empire Building: This stream of research claims that merger waves occur due to malalignment of interest between the principals and the agents, i.e., the owners and managers. Based on the significant work of Jensen (1986), and propagated by Gugler et al. (2012), and Tosi et al. (2000), this agency theory aligned hypothesis states that managers may enlarge the business by taking

over value-destructive firms without regard to shareholder benefits when managers have significantly high cash available in hand. This theory has also been termed by researchers as managerial discretion theory (Gugler et al., 2012) or agency theory (Xu, 2017) of merger. Mueller (2018), based on prior literature attributed conglomerate merger wave of 1960 to managerial empire building without concern to profit or value generation. This type of enlargement of business may be driven by the motive of managers to manage large organizations (Xu, 2017; Goel and Thakor, 2010) or to reduce likelihood of being acquired (Gorton et al., 2009), or to get higher compensation compared to other managers in the market (Goel and Thakor, 2010). As no consideration is given by managers to shareholder value under this hypothesis, mergers are generally value destructive and post-merger performance of firms decline (Xu, 2017). Duchin and Schmidt (2012), an empirical study based on around ten thousand mergers between 1980 and 2009 finds that mergers during waves are indirectly more "agency-driven". They find managers to be less likely to be removed if they undertake bad takeovers during waves. Moreover, low corporate governance during waves along with milder consequences of bad mergers on managers after wave make them conclude that managers may get involved in more empire building during waves.

## 3.3. Key Differences between Neoclassical and Behavioural theories of merger waves

A summary of differences between neoclassical and behavioral schools of thoughts regarding merger waves has been presented by Harford (2005, p.536). Firstly, accroding to neoclassical researchers, industry shocks along with liquidity causes industry waves while misvaluation of shares cause such waves according to behavioral researchers. Aggregate merger waves also have similar difference in cause of happening. Secondly, according to neoclassical researchers, cash acquisitions of targers increase during waves while behavioral theorists predict acquisitions to occur in exchange of overvalued stocks. Thirdly, neoclassical studies do not make any prediction about dispersion of return before and after the wave. Behavioral theorists on the other hand predict high dispersion of stock return before wave while such return according to them reduces after the wave. Fourthly, while neoclassical theorise improvement in operating performance after the wave, behavioral theories predict decline in post-wave performance.

The only similarity between the theories is that both the theories predict high return and market to book value of shares before waves.

# 4. Critical Analysis of the Theories and Their Underlying Assumptions

The neoclassical theories of merger are based on three assumptions about impact of mergers on performance, market efficiency, and intention of managers which in our opinion are quite strong assumptions to make. Though there is strong debate for and against the assumptions, we think, in the face of historical evidence, it might be difficult to believe that the assumptions always hold.

There is plethora of cases where management was not working to maximize wealth of shareholders. Though in many instances, the exante motives of managers might be to maximize wealth of shareholders, the ex-post actions did not conform to their prior motives. For example, in 1990's managers of Olympus Corporation, shifting focus from their core operation, invested in secondary stock market expecting subsequent boom in the market. Unfortunately, they accrued a loss of ¥117.7 billion from such investment and decided to hide the loss. The management went for multiple suspicious acquisitions at higher premiums. Acquisition at premium helped them recognize goodwill to hide their loss. But change in accounting regulation about disclosure of goodwill made them disclose the loss in 2011 and such disclosure resulted in ¥376 billion loss in assets of the shareholders. Though investment in secondary stock market might be driven by intention to maximize shareholder wealth, the motives of the acquisitions can easily be questioned. But we should also recognize that neoclassical school of thought does keep scope for some deviation from assumptions.

The subprime financial crisis is a recent example which proves that market might not be efficient enough to analyse even publicly available information. Investors were caught unaware about the risks associated with CDOs and MBS during the subprime crisis. Many scholars blame reliance on EMH to be responsible for the subprime crisis though such claim has mostly been refuted by academicians (Siegel, 2009). As decisions in financial markets are made by homosapiens but not homo-economicus, we think, EMH can thus just be a starting point for understanding financial market, but not the ultimate theory to rely on. Overreliance on EMH is an intellectual sink which

prevents from accommodating social, behavioural aspects of financial decision making (Dymski, 2011).

# 4.1. Suboptimality of q Theory of Merger and Industry Shock Hypothesis

Q theory of merger suffers from a few suboptimalities. Firstly, Q theory of merger cannot account for conglomerate mergers. Jovanovic and Rousseau (2002) states that the q theory of merger they proposed can explain all merger waves till 1990s' except for the conglomerate merger wave of 1960s'. They state the merger wave of 1960's to be caused by 'something else'. Unfortunately, horizontal mergers account for less than fifty percent of total mergers today (Gugler et al., 2012). This limitation of the theory has been reflected in academic empirical literatures as well. For example, Dong et al. (2006) found Q theory to be more precise in explaining pre-1990 waves than the later ones. Secondly, the q theory of merger considers acquisition of used capital asset and acquiring other entities to be similar. The theory fails to recognize that acquirer could buy new capital assets which could be more optimal (Gugler et al. 2012). Thirdly, Q theory assumes that when there is excessive free cash flow to a bidder, managers can go for suboptimal takeovers. This indicates to agency problem between managers and owners. Agency problem is a deviation from a fundamental neoclassical assumption than managers will always maximize shareholder wealth.

The industry shock hypothesis assumes that several industries need to experience shock and such shock needs to be supported by high liquidity to create a merger wave. Behavioural researchers of finance (e.g., Gugler et al., 2012) find it implausible that such several incidences can occur at the same time. If we analyse critically the claim of the hypothesis, we think that a macroeconomic factor (i.e., liquidity) but not the industry shock itself can explain merger wave. Besides, though industry shocks are normally assumed to be externally created, some shocks like deregulation can be endogenous (Ovtchinnikov, 2013). The industry shock hypothesis thus may be wrongly substantiated in instances of change in regulatory, or technological restructuring if such change is negotiated by some players within industry.

### 4.2. How Valid is Behavioural Schools Claim of Market Inefficiency?

Most arguments for behavioural factors driving mergers waves relies on the assumption that markets are inefficient and therefore, companies are valued incorrectly. If this is the case them the efficient market hypothesis (EMH) would not hold. However, it should also be said that although many researchers have investigated, no one has found any behavioural theory that could replace EMH or prove it to be incorrect.

Both Rhodes-Kropf and Viswanathan (2004) and Shleifer and Vishny (2003) could be used to argue that market efficiency does not hold as these degrees of mispricing should not be occurring in a market where all participants are fully informed and there is no information asymmetry that can lead to overvalued stock. However, Fama (1998) discusses that over and underreactions to information are as common as each other and balance each other out, which suggests there must be some degree of market efficiency therein. Although much of the behavioural finance literature can make reason to suggest that markets are not efficient, there have been no theories that have been able to provide an alternative explanation to how market prices are determined by considering behavioural aspects or rationality of managers and/or investors. It is even acknowledged by Shleifer and Vishny (2003) that the companies mis-valuation will eventually be realised once the market catches up with the necessary information. If this happens then it could be considered proof that EMH still holds with the firm's information still finding its way into the market, just later than expected.

### 4.3. Management overconfidence in decision making

Much of the conversation around behavioural theories seem to differ in terms of whether managers are rational doing their best in an inefficient market, or whether managers are irrational, making decisions based on overoptimistic views or being overconfident in their own abilities to spot valuable opportunities.

Hajbaba and Donnelly (2013) recognise how previous 'evidence' of mispricing, such as long running underperformance, could be explained by other factors and might not actually be proof that the company is overvalued. They believe that earnings disappointments following an acquisition are a sign of over-optimism which can be used as an alternative way to evidence the overvaluation of the acquiring firm. The assumption here that managers expect

biggest benefits from acquisitions, leaving them disappointed when this does not happen, might explain the situation of some M&A deals. However, if merger waves are triggered by markets with a high volume of over/undervalued companies, then this is unlikely because this would suggest that a large amount of managers out there have trouble viewing a realistic benefit to their investment decisions and are all overoptimistic about the synergies out there. You would also expect at some point that the failure of these acquisitions to provide high returns would be a learning opportunity for other managers considering similar decisions.

Rhodes-Kropf and Viswanathan (2004) and Roll (1986) both view managers to make errors in valuating perceived synergies even when they either know that their own company is mis-valued or know that they have made errors in their previous investment decisions. This contradicts the discussion by Shleifer and Vishny (2003) who believe that rational managers know exactly what they are doing and are exploiting opportunities. Whether or not manager's decisions would be considered rational, it is hard to believe that people in the position to make these decisions would not be aware of what they are doing and if they had a history of misjudging investment potential, it would be expected that shareholders would have something to say about them being given the opportunity to undertake a risky acquisition.

# **4.4. Managerial Compensation Planning and Managerial Empire Building**

Though the conglomerate merger wave of 1960s' is attributed to be driven by managerial discretion (Mueller, 2018), the current state of compensation planning poses doubt about possibility of new merger waves driven solely by empire building motives of managers. There has been significant rise in the compensation of top management in the last few decades (Moore, 2015). Moreover, many researchers (e.g., Hall, 2005) report dramatic increase in share-based compensation to managers with more emphasis on performance based long-run stock options given to top executives. With the rise of such equity-based stock options entitled to be executed in the long run, along with spur of other corporate governance mechanisms globally in the last few decades, we suspect that though there may be scattered incidence of managerial empire building, occurrence of new merger waves due to managerial discretion is unlikely.

### 5. Conclusion

Our study makes a considerable contribution by critically examining the two main streams of theories explaining merger waves. Neoclassical theorists believe markets to be efficient, managers to be working for wealth maximization of firms, and mergers to create positive abnormal returns, proposed and supported q theory of merger and industry shock hypothesis. Among the behavioural theorists, theorists supporting aggregate level market mis-valuation as the reason for merger waves assume market to be inefficient and managers to be rational. However, the managerial hubris hypothesis assumes market to be strongly efficient while managers can be overconfident. Claims of both market efficiency and market inefficiency has its supports, but no single theory so far could replace the EMH. Moreover, as the theories deal with behaviour of homo-sapiens, the irrationality of actions of managers driven by agency problems can neither be ruled out. Empirical studies ensure possibility of coexistence of behavioural and neoclassical theories. Sonenshine (2019) found that merger waves over last two decades were triggered by regulatory and economic shocks while merger premiums were determined by the behavioural aspect of mispricing. Hsu et al. (2017) finds mergers in oil and gas industry to be driven by price shock and production change. This according to them indicates recent merger wave in oil and gas sector to be explainable using both neoclassical and behavioural theories. Andriuškevičius and Štreimikienė (2021) finds in a review of literature on merger waves that all the components of PESTLE, some of them related to neoclassical theories and others to behavioural theory of merger, had significant impact on merger waves in energy sector between 1995 and 2020. We, therefore based on latest literature, conclude that both neoclassical and behavioural theories have provided interesting insight into the possible reasons behind merger waves. There is a lot to both discussions that could be interpreted to fit either side of the debate. Evidence does not disprove either argument, so it would be wrong to disregard any of the hypothesis discussed without further research. Neoclassical theories are good starting points for analysis of merger waves but as decisions in financial markets are taken by homo-sapiens, some behavioural aspects have significant influence as well. Researchers of the discipline should attempt to develop theories that incorporate both economic and behavioural aspects of merger waves.

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